

Dyadic Coping in Late Adolescent Couples

Thesis (cumulative thesis)

Presented to the Faculty of Arts and Social Sciences

of the University of Zurich

for the Degree of Doctor of Philosophy

by Christina Jessica Breitenstein

Accepted in the Spring Term 2015

on the Recommendation of the Doctoral Committee:

Prof. Dr. Guy Bodenmann (main advisor)

Prof. Dr. Susanne Walitza

Zurich, 2015

AKNOWLEDGEMENTS

First and foremost, I would like to thank Professor Guy Bodenmann for the opportunity to write this thesis, for the motivation, inspiration, advices, mentorship and for his confidence. It is a great experience to work with you.

I would also like to thank Professor Susanne Walitza for being the second reviewer of this thesis, and Fridtjof Nussbeck for his advices and statistical support.

This thesis is for my husband Michael Breitenstein, for loving me, strengthen me and standing behind me; for my mother Claudia Götz, who always believed in me and supported me where ever she could; and for my father Ruedi Götz, for everything what he gave me on my way.

A special thank goes to Anne Milek who inspired me in many scientific discussions and supported me in manifold ways during the project and writing process. With all my heart I would like to thank Corina Merz and Dominique Zygmunt for reading and commenting parts of this thesis and for their support.

My colleagues Valentina Anderegg, Martina Zemp, Mirjam Kessler, Dorothee Sutter-Stickel, and Rebekka Kuhn applies my sincere gratitude. Thank you for your advices, scientific exchange, team spirit and all personal conversations.

My deepest gratitude goes to Bernice Würth and Sharmila Egger who were always there for me. Thank you for your unique friendship.

Last but not least, I would like to thank all my other friends and family members for their support and for believing in me.

This study would not have been possible without the students and interns who contributed to get the project going on, and without the many adolescent couples who participated. A special thank goes to Marianne Moll who supported the PiA-Project in manifold ways. Thank you.

ABSTRACT

Romantic relationships in late adolescence are characterized by strong emotional bonds, serious commitment, and mutual emotional and instrumental support. Accordingly, they resemble rather adult relationships than romantic relationships in early and mid-adolescence. Whereas a growing number of studies have proven the importance of dyadic coping for relationship satisfaction, stability and the health of both partners in adult couples, there are hardly any empirical findings about the nature and dynamics of dyadic coping in adolescent romantic relationships. Accordingly, the aim of this thesis was to lay a foundation for examining dyadic coping in late adolescent couples, to gain further insights into mutual interdependence of adolescent partners, and to contribute to knowledge on intimate relationships in this specific stage of development. Results indicate that there are similarities and differences in late adolescent couples' dyadic coping compared with previous findings on adult couples. Dyadic coping seems to have a primary intimacy promoting function, and contributes on both, current relationship satisfaction as well as physical and mental well-being of adolescent partners. However, dyadic coping can neither predict relationship satisfaction nor relationship stability over one year. Results are discussed in the present state of knowledge on romantic relationships in adolescence.

ZUSAMMENFASSUNG

Romantische Beziehungen im späten Jugendalter zeichnen sich bereits durch starke emotionale Bindungen, ernsthaftes Engagement und gegenseitige emotionale und instrumentelle Unterstützung aus. Folglich ähneln diese Beziehungen eher Partnerschaften im Erwachsenenalter als romantischen Beziehungen in der frühen und mittleren Adoleszenz. Während eine wachsende Zahl von Studien die Bedeutung von dyadischem Coping für die Partnerschaftszufriedenheit, die Stabilität von Beziehungen und die Gesundheit beider Partner gezeigt hat, gibt es kaum Befunde über die Bedeutung und Dynamik von dyadischem Coping in adoleszenten Partnerschaften. Das Hauptanliegen der vorliegenden Arbeit war eine Grundlage für die Erforschung des dyadischen Copings bei jugendlichen Paaren in der späten Adoleszenz zu legen, weitere Einblicke in die wechselseitige Abhängigkeit der jugendlichen Partner zu gewinnen und zu weiteren Erkenntnissen über Partnerschaften in diesem spezifischen Entwicklungsstadium beizutragen. Die Resultate weisen darauf hin, dass es sowohl Unterschiede als auch Gemeinsamkeiten im dyadischen Coping von jugendlichen Paaren verglichen mit den bisherigen Befunden zu dyadischem Coping in den Partnerschaften Erwachsener gibt. Dyadisches Coping scheint bei spät-adoleszenten Paaren eine primär intimitätsfördernde Funktion zu haben und sowohl zur aktuellen Beziehungszufriedenheit als auch zum psychischen und physischen Wohlbefinden beider Partner beizutragen. Hingegen kann dyadisches Coping weder die Partnerschaftszufriedenheit noch die Partnerschaftsstabilität jugendlicher Paare nach einem Jahr vorhersagen. Die Ergebnisse werden in den bisherigen Wissensstand über Partnerschaften im Jugendalter eingeordnet und diskutiert.

TABLE OF CONTENTS

Preface	1
INTRODUCTION	2
1. Adolescence	2
1.1 Developmental perspectives on relationships in adolescence	4
2. Romantic relationships in Adolescence	7
2.1 Four phase model of romantic relationship development (Brown, 1999)	7
2.2 Characteristics of romantic relationships in adolescence	9
3. Stress and Coping in Intimate Relationships.....	11
3.1 A Systemic-Transactional View of Stress and Coping in Intimate Relationships.	12
3.2 Stress and Coping in Adolescence	14
3.3 Dyadic Coping in Adolescence.....	16
4. Research Questions	18
EMPIRICAL STUDIES	21
5. Study I: Stress, Dyadic Coping and Relationship Satisfaction in Adolescent Couples	21
6. Study II: Dyadic Coping and Its Association with Relationship Satisfaction and Well-Being in Adolescent Couples	43
7. Study III: Can Coping Predict Relationship Satisfaction and Stability in Adolescent Couples After One Year?	65
GENERAL DISCUSSION.....	85
8. Summary of Findings	85

9. Strengths and Limitations.....	88
10. Future Research	90
11. A Word to Practitioners	91
12. Closing Remark	94
REFERENCES	95
LIST OF TABLES	114
LIST OF FIGURES	115

Preface

For a long time romantic relationships in adolescence were widely ignored in research (Furman & Wehner, 1994). The book "The development of romantic relationships in adolescence" edited by Furman, Brown, and Feiring (1999) can be seen as a turning point in this respect, because those authors have taken up this remarkable deficiency and called on the scientific community to pay increased attention on this topic. Since this publication, studies and theoretical approaches focusing on romantic relationships in adolescence have burgeoned. However, our knowledge today about romantic relationships in adolescence and specifically in late adolescence and transition to adulthood is still sparse.

This thesis is based on a larger project on adolescents' romantic relationships (*Partnerships in Adolescence, PiA*) which has been funded by the Swiss National Science Foundation (SNSF; No: 100014_129699). It is divided into three main parts: In the introduction, used terms are clarified (Chapter 1), the topic of romantic relationships is integrated in a broad theoretical framework (Chapter 1.1), specific characteristics of romantic relationships in adolescence and a phase model of romantic relationship development are depicted (Chapter 2). Subsequently a concept of stress and dyadic coping in intimate relationships is introduced (Chapter 3) and research questions are summarized (Chapter 4). In the second part, three own scientific contributions are presented (Chapter 5-7). Finally, in the general discussion, study findings are summarized (Chapter 8) and their strengths and limitations outlined (Chapter 9). The thesis is concluded with future research implications (Chapter 10) and a word to practitioners (Chapter 11).

INTRODUCTION

1. Adolescence

Conger and Petersen (1984) stated that "adolescence begins in biology and ends in culture" (p. 82). Adolescence is the period between childhood and young adulthood, and begins with the biological changes of puberty (Abbott, 2005). The duration of adolescence varies according to culture and over time due to social changes (Arnett, 2000; Flammer & Alsaker, 2002). Due to sweeping demographic shifts during the last century in industrialized countries, adolescence has prolonged (Arnett, 2000). As shown in Figure 1-1, men and women marry later in their life than 40 years ago. Nowadays, couples in Switzerland are on average 5 years older at first marriage than 1971 (Swiss Federal Statistical Office (BfS), 2014). Women's average age at maternity increased almost in parallel to the rate of increase

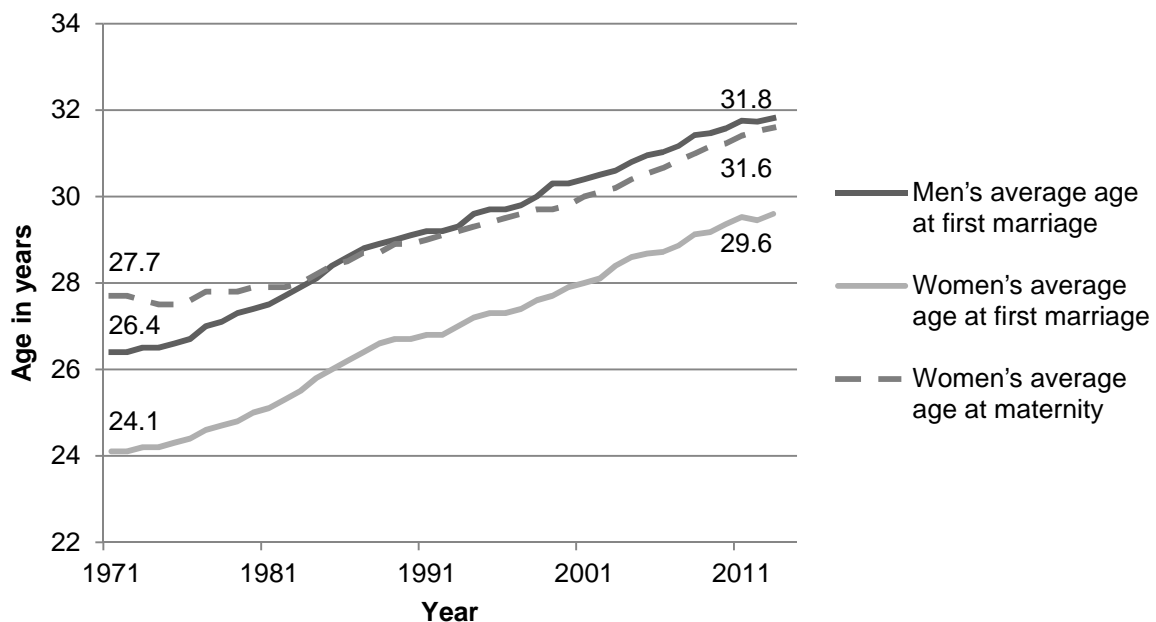


Figure 1-1. Women's and men's average age at first marriage and women's average age at maternity over years (1971 – 2013) in Switzerland (Swiss Federal Statistical Office (BfS), 2014).

in the average age at first marriages (BfS, 2014). Furthermore, due to a trend toward longer education, adolescents are at least financially longer dependent on their parents (Pinquart & Fabel, 2009). However, to describe all these social changes is beyond the scope of this thesis.

Most researchers distinguish between three phases in adolescence: *early adolescence* (age between 10 and 13), *mid-adolescence* (age between 14 and 17), and *late adolescence* (age between 17 and 20) (e.g., Flammer & Alsaker, 2002; Smetana, Campione-Barr, & Metzger, 2006). Arnett (2000) proposed to define an additional developmental stage between late adolescence and young adulthood (between ages 18 and 25), which he labeled as *emerging adulthood* to address the above mentioned social changes. His assertion of an emerging adulthood as a distinct period of development is based on (a) a high demographic diversity and instability during this period (e.g., regarding housing situation), (b) the subjective ambiguous view of self of people in their twenties (i.e., they describe themselves in some respects not as being young adults/adolescents), and (c) the prolonged opportunity of identity exploration (Arnett, 2000). In fact, his proposed period of emerging adulthood overlaps with the one of late adolescence but is defined by a longer duration. However, a prolongation of late adolescence is supported by recent findings in neuropsychology which demonstrate that brain maturation continues until the mid-twenties and related mature decision making does not emerge earlier (Caffman & Steinberg, 2000).

Later stages of adolescence are supposed to be most important with regard to romantic development, especially when considering mutual interdependent behaviors between partners in these relationships (Bradbury & Karney, 2010; Brown, Feiring, & Furman, 1999). As dyadic coping refers to an interdependent behavior between intimate partners, the focus of this thesis was placed on late adolescence and emerging adulthood as it has been conceptualized by Arnett (2000). Due to parsimony the term *adolescence* and/or *late*

adolescence was used in this thesis to refer to this specific stage of development. Earlier stages of adolescence were spelled in full (e.g., early adolescence).

1.1 Developmental perspectives on relationships in adolescence

When talking about romantic relationships in adolescence, an overarching developmental perspective is needed and accordingly, some important concepts of development and social interactions have to be mentioned. The following relevant concepts and approaches were briefly summarized in the subsequent section and put into relation to the topic of romantic relationships in adolescence: *The Concept of Developmental Tasks* of Havighurst (Havighurst, 1948), *Attachment Theory* (Bowlby, 1969, 1973), and *Interdependence Theory* (e.g., Kelley, Holmes, Kerr, Reis, Rusbult, & Lange, 2003; Thibaut & Kelley, 1978).

1.1.1 Developmental tasks (Havighurst, 1948)

According to Havighurst (1948) individuals are confronted sequentially with specific tasks in different stages of their development (i.e., developmental tasks). Successful mastery of these tasks facilitates the mastery of subsequent developmental tasks and leads to normative development. To establish and maintain intimate relationships is a key developmental task in adolescence (Grob & Jaschinski, 2003; Havighurst, 1948). The successful mastery of this developmental task is connected with physical and mental well-being as well as with future relationship assumptions of both partners (Furman & Shaffer, 2003). Furthermore, this task is interrelated with other developmental tasks in adolescence, as for example forging identity, detachment from the family or adopting socially-approved masculine and feminine adult roles (Grey & Steinberg, 1999).

1.1.2 Attachment Theory (Bowlby, 1969, 1973)

Attachment theory describes the search for intimacy and social security as a biologically-driven imprinting process and behavioral system in childhood (Bowlby, 1969, 1973). *Inner working models* of close relationships develop on the basis of early experiences with primary caregivers. These inner working models in turn guide our behavior in future interactions and development of intimate relationships. Bowlby assumed that the parent-child bond expands to other adults (e.g., teachers), peers, and romantic partners in adolescence (Seiffge-Krenke & Ziegenhain, 2009). In this stage of development, a secure attachment style promotes detachment from parents (parents continue to serve as a *secure base*) and the exploration of peer relationships and intimate relationships (Seiffge-Krenke & Ziegenhain, 2009). For example, secure-attached adolescents have been found to cope with relationship-related stress more competently (Seiffge-Krenke, 2006), to report less negative romantic experiences and more positive expectations related to marriage (Steinberg, Davila, & Fincham, 2006). Furthermore, recent longitudinal studies show linkages between relationships with parents and friends in earlier development stages and those with romantic partners in adolescence (for an overview see Collins, Raby, & Causadias, 2012). Likewise, experiences within romantic relationships in adolescence have been associated with further individual development, relationship expectations and relationship quality in young adulthood (Furman & Shaffer, 2003; Madsen & Collins, 2011).

1.1.3 Interdependence Theory (Kelley et al., 2003; Thibaut & Kelley, 1978)

Interdependence theory belongs to the social exchange theories and emphasizes the mutual interdependence of the members of a dyad (Collins et al., 2012). According to interdependence theory, individuals generally seek to maximize their benefits. The subjectively experienced result of an interaction is the result of a comparison of rewards (i.e., positive consequences of the interactions) and costs (negative consequences of the

interactions). Furthermore, the result is transformed into interpersonal orientations (*goals*) and specific *norms* (Bierhoff, 2014). The comparisons of the result with own expectations (*comparison level*) imply the degree of satisfaction with the interaction. A comparison of the result with anticipated results of available alternatives (*comparison level of alternatives*) gives the degree of dependence on the interaction partner (i.e., to obtain the best possible result) (Kelley et al., 2003; Macher, 2014; Thibaut & Kelley, 1978).

In adolescence, relationships and, consequently, interdependences change. For example, within family relationships, parents as well as adolescents have to adjust their expectations as adolescents advance in age (Collins, 1997; Collins et al., 2012; Furman & Shaffer, 2003). In the course of adolescence, the parental exertion of influence decreases whereas the quality of romantic relationships increases (Seiffge-Krenke, 2009). Moreover, the interdependence with peers and romantic partners increase, and adolescents need to develop skills (e.g., self-disclosure, supportive behavior) to maintain interdependence within these relationships (Chow, Roesle, Buhrmester, & Underwood, 2012; Collins & Repinski, 1994).

2. Romantic relationships in Adolescence

Romantic relationships defined by Collins (2003) are "on-going voluntary interactions that are mutually acknowledged, rather than identified by only one member of a pair" (p. 2). They also have a peculiar intensity, and perhaps the expectation of sexual relations. This definition emphasizes the dyadic nature and distinctiveness of these relationships, which are both normative and salient during adolescence (Collins, Welsh, & Furman, 2009). In this thesis the term *romantic relationship* was used to refer to heterosexual romantic relationships, since homosexual relationships are supposed to have other development trajectories and implications (see for example Russel, Watson, & Muraco, 2012).

Romantic relationships, especially in late adolescence and emerging adulthood are not as trivial and transitory as once thought; they rather resemble adult relationships in aspects as commitment, communication, companionship, passion to relationship satisfaction, and offer affection, intimacy and support (Collins, 2003; Levesque, 1993; Shulman, Davila, & Shachar-Shapira, 2010). Furthermore, these relationships are a source of strong emotions and sometimes of stress (Larson, Clore, & Wood, 1999; Nieder & Seiffge-Krenke, 2001; see also Chapter 3.2).

2.1 Four phase model of romantic relationship development (Brown, 1999)

Several stage theories on adolescent relationship development have been proposed over the last three decades (e.g., Brown, 1999; Connolly, Craig, Goldberg, & Pepler, 1999, 2004; Connolly & Goldberg, 1999; Feinstein & Ardon, 1973; Furman & Wehner, 1994). All of them have in common that later stages in this development trajectory are associated with more committed and reciprocal relationships in which adolescents are more able to be aware of their own and their partners' emotional needs. The four phase model of romantic development

by Brown (1999) can be seen as the most salient and sustainable stage theory in this context, which has been supported by various empirical findings (see Seiffge-Krenke & Shulman, 2012).

In the *Initiation Phase*, which is related to early adolescence, a general interest in the opposite sex emerges due to the onset of puberty. Romantic activities contain conversations with same-sex peers on potential romantic partners or romantic activities and teasing members of the other sex, whereas romantic *relationships* are not highly salient in this phase. The focus is mainly on own feelings. Sharing these feelings within the (same-sex) peer group contributes to the exploration of romantic issues and to sharpen the romantic self-concept (Brown, 1999). In the *Status Phase*, dating is seen as a tool to achieve or maintain a status within a peer group. Early and mid-adolescents try to enhance or maintain their status within the social group by dating "the right kind" of people (Seiffge-Krenke & Shulman, 2012). Romantic relationships in this phase are predominantly superficial, public, and brief (Brown, 1999). In the *Affection Phase*, there is a shift of perspective away from the peer group to the relationship itself. Relationships become more steadily and provide intimacy, affection, and security. Partners, usually in late adolescence, experience deeper feelings of commitment toward the relationship, probe each other's personality, begin to care for each other, and engage more in sexual activities. The increasing commitment to the relationship provides opportunity for self-disclosure within as well as beyond relationship-related topics (Brown, 1999). Finally, in the *Bonding Phase*, individuals start to think about their future. Whereas depth is expected to endure, some of the emotionality of the affection phase is replaced by a more pragmatic view of the partner and the relationship itself. Essential issues of relationships in this phase include thinking of staying together for a lifetime, searching for a balance between closeness, intimacy and independence, individuality. This phase is seen as characteristic in the transition to young adulthood (Brown, 1999).

2.2 Characteristics of romantic relationships in adolescence

Romantic involvement refers to the age at which early adolescents start dating, whether they date or not, and to the duration of romantic relationships (Collins et al., 2009). Most individuals in late adolescence are involved in a serious romantic relationship (Carver, Joyner, & Udry, 2003). For example, Bodenmann (2003) reported in a descriptive study that 51% of the 17 to 23-year-old high school students in Switzerland said to be in a romantic relationship. In the National Longitudinal Study of Adolescent Health, 61% of the 16-year-old or older adolescents reported to currently have or have had a romantic relationship with a length of 12 months or more. Eleven months after the first wave of the study, 21% of the 14-year-old or younger participants reported that their relationships with the same partner were still stable; so did 49% of 15-16-year-olds and 58% of the 17-year-old or older adolescents (Carver et al., 2003). Consequently, the probability of having a romantic relationship increases with age and so does the duration of these relationships (Connolly & Johnson, 1996). On the other hand, most individuals go at least once through a break-up during adolescence (Connolly & McIsaac, 2009). Whereas relationship break-ups in general are seen as normative in this developmental stage (Collins et al., 2009), high relationship instability (i.e., frequent relationship transitions) has been found to be related to worse general health (Adam et al., 2011) and an increased risk for the onset of a depression (Field, Diego, Pelaez, Deeds, & Delgado, 2009; Monroe, Rohde, Seeley, & Lewinsohn, 1999). Moreover, regarding quality of these relationships, more supportive, satisfying and committed relationships have been associated with higher individual functioning and general well-being of the involved partners (Collins et al., 2009).

Collins' (2003) definition of romantic relationships includes further characteristics of these relationships as "mutually acknowledged interactions" and an "expectation of sexual relations" (p. 2): First, in a qualitative observation study, conflict discussions among mid-

adolescent partners have been found to be more concrete, brief, and superficial compared with conflict discussions between late adolescents and young adults, which perceived their differences as incentives for deepening and improving their relationship (Tuval-Mashiach & Shulman, 2006). Even though mothers have been found to be objectively more responsive in conflict discussions compared with romantic partners, mid-adolescents perceive to receive more support in their romantic relationships compared with other relationships (Furman & Shomaker, 2008). In short, interactions between adolescent partners become deeper and more reciprocal with age. Second, adolescents engage in sexual activities, including kissing, hugging, holding hands, and sexual intercourse, what makes romantic relationships the preferred context to explore sexuality (Welsh, Haugen, Widman, Darling, & Grello, 2005). However, sexual behavior as normative behavior in the context of romantic relationships was only investigated within the last decade (Collins et al., 2009; Florsheim, 2003a). Especially kissing and desiring has been found to be positively associated with relationship satisfaction and commitment in adolescents' romantic relationships (Welsh et al., 2005). Whereas sexual intercourse was negatively associated with relationship satisfaction in younger adolescents, it was positively associated with relationship satisfaction in older adolescents (Welsh et al., 2005).

Summing up, these findings support a general shift from more superficial to more committed relationships between mid- and late adolescence (usually around the age of 17) (Nieder & Seiffge-Krenke, 2001). Furthermore, a sequential development according to Brown's four phase model was evidentially supported (Seiffge-Krenke, 2003).

3. Stress and Coping in Intimate Relationships

Over time, various conceptualizations of stress and coping have been offered by research. This thesis is based on the well-established and widely used *Transactional Stress Model* proposed by Lazarus and Folkman (1984). According to Lazarus and Folkman (1984, p. 141), a person experiences stress when a stimulus (stressor) "is appraised as taxing or exceeding his or her resources" to cope with this stimulus. Whereas coping was defined as "constantly changing cognitive and behavioral efforts to manage" the appraised demands (Lazarus & Folkman, 1984, p. 141). According to this model, stress is a two-part subjective appraisal process of an individual: First, a situation or a stimulus has to be appraised as stressful (*primary appraisal*); and second, own skills and resources to cope with this stimulus have to be appraised as insufficient (*secondary appraisal*).

However, this individual-centered stress and coping approach describes only partly the processes of stress and coping in intimate relationships: Although they assume an inter-relation between the individual and the environment and include social support as an individual coping resource, dyadic exchange and mutual interdependence between intimate partners was widely neglected (Bodenmann, 1995, 2000). A systemic view of these processes in close relationships might be more accurate as these relationships feature high levels of intimacy between partners, a high density of information exchange and spatial proximity (Bodenmann, 2000). Research on intimate relationships supports this view by showing that support from an intimate partner is a unique resource: For example, several empirical studies have shown that intimate partners are the primary support providers in times of stress, that intimate partners are mobilized first if stress exceeds individuals' coping resources, and that lack of support from the partner may not be compensated by any other resource to the same

extent (e.g., Beach, Martin, Blum, & Roman, 1993; Brown & Harris, 1978; Coyne & Smith, 1991).

3.1 A Systemic-Transactional View of Stress and Coping in Intimate Relationships

Bodenmann's *Systemic-Transactional Model* of stress and coping in intimate relationships is based on three basic assumptions: (1) a systemic and processual comprehension of stress, (2) a sequential activation of resources (i.e., *Cascade Model*), and (3) a systemic definition of coping (Bodenmann, 2000, p. 44). These key assumptions are described in more detail below.

First, stress emerging outside the relationship can spillover into the relationship in three ways: (a) when stress accumulates (e.g., accumulation of daily hassles), (b) when stress is severe and long-lasting (e.g., major life events), and/or (c) when the stress exceeds individuals' coping resources or individuals' coping strategies are dysfunctional. Accordingly, even if only one partner experiences stress, the stress may become relevant for the dyad and affecting both partners (Bodenmann, 1995). Second, individuals who are affected by stress attempt to cope first individually. They draw only on their dyadic resources when their individual coping efforts fail, or if the stress concerns both partners. However, a strict time-sequence is not assumed, rather a successive coexistence of individual and dyadic efforts (Bodenmann, 2005). Third, when stress becomes relevant for both partners, they engage in a common coping process. This process contains (a) stress expression of one partner (i.e., verbal or nonverbal), (b) the perception of these signals by the other partner and (c) the reaction to these signals by the partner (or no reaction - when ignoring or not perceiving a partner's stress). Partner's reaction is called dyadic coping and can either be positive or negative. Positive dyadic coping includes *supportive dyadic coping* (e.g., showing empathy and understanding), *delegated dyadic coping* (e.g., undertaking a specific task for the partner)

and *common dyadic coping* (e.g., searching for a tangible solution to the problem together). Negative dyadic coping subsumes *ambivalent coping* (e.g., providing support but without empathy), *hostile coping* (e.g., violating statements), and *superficial coping* (e.g., meaningless truisms) (for an overview see Bodenmann, 2005).

This systemic transactional view of stress and coping in intimate relationships is a well-established and meaningful concept as "dyadic coping is more than the sum of two individuals' coping responses" (Folkman, 2009, p. 73). Stress has been found in a great number of studies to infiltrate relationships in an unfavorable way. In this context, different types of stress can be identified considering (a) the duration of a stressor (i.e. *acute* vs. *chronic*), (b) the origin of stress (i.e., intra-dyadic vs. extra-dyadic), and (c) the severity of stressors (i.e. *daily hassles* vs. *major life events*, or *minor* vs. *major stressors*) (Karney & Bradbury, 2005; Randall & Bodenmann, 2009). Particularly chronic extra-dyadic minor stress seems to deteriorate relationship quality and stability (Falconier, Nussbeck, & Bodenmann, 2013; Harper, Schaalje, & Sandberg, 2000; Neff & Karney, 2004; Story & Repetti, 2006). According to Bodenmann's *Stress-Divorce Model* extra-dyadic chronic stress reduces partners' shared time, energy and resources, and increases negative behaviors within the relationship (Bodenmann, Charvoz, et al., 2007; Randall & Bodenmann, 2009).

Dyadic coping and the significance of this concept for prevention and therapy has been outlined by Bodenmann (2008a). Dyadic coping has been found to buffer the negative impacts of stress on intimate relationships by two main processes: First, by reducing both partners' stress and preventing the stress from spill-over into the relationship causing intra-dyadic stress (e.g., Falconier et al., 2013); and second, by bringing the couple closer together and strengthen its cohesion and feeling of we-ness (Bodenmann, 1997; Cutrona, 1996). Numerous studies found substantial positive associations between dyadic coping and marital functioning and stability (Bodenmann, 2005; Bodenmann, Pihet, & Kayser, 2006; Pasch &

Bradbury, 1998), psychological and physiological well-being of both partners (Bodenmann, Meuwly, & Kayser, 2011), as well as adjustment in context of chronic illness in adult couples (Badr & Acitelli, 2005; Berg & Upchurch, 2007; Hagedoorn, Sanderman, Bolks, Tuinstra, & Coyne, 2008; Revenson, 2003).

3.2 Stress and Coping in Adolescence

Adolescence is a time of high demands, intense emotions and various physical and psychosocial changes. Accordingly, adolescents' stress is strongly related to their developmental stage (e.g., identity development, detachment from parents). Regarding daily hassles, adolescents report to experience highest levels of stress in situations concerning social relationships, as for example in conflicts with parents, peers or close friends (Lohman & Jarvis, 2000; Seiffge-Krenke, 2006). Other frequently mentioned day-to-day stressors were school achievement, extra-curricular activities or dissatisfaction with one's development and future (Lohman & Jarvis, 2000; Seiffge-Krenke, Aunola, & Nurmi, 2009). Regarding gender differences, female adolescents have been found to report overall higher levels of stress compared with male adolescents (Compas, Davis, & Forsythe, 1985; Compas, Orosan, & Grant, 1993; Seiffge-Krenke et al., 2009).

One of the major sources of anguish and distress in adolescence are romantic relationships themselves (Larson et al., 1999). Especially early adolescents experience stress in several aspects of these relationships: for example in their initiation (e.g., asking somebody for a date, to be unhappily in love), in topics concerning the relationship itself (e.g., insecurity about partner's feelings, conflict with the partner), in going through a break-up, and/or when they do not have a romantic relationship while other peers in the same age group have one (Field et al., 2009; Nieder & Seiffge-Krenke, 2001). However, regarding development trajectories, Nieder and Seiffge-Krenke (2001) found a significant decrease in romantic stress

over time, whereas competencies to cope with this stress increase. Early adolescents reported highest levels of romantic stress and perceive low intimacy and affection in these relationships, whereas older adolescents experienced less romantic stress and higher levels of intimacy and affection with their romantic partners (Nieder & Seiffge-Krenke, 2001).

Adolescents experiencing higher levels of stress have been found to report worse general adjustment and poorer physical and mental health. In this context, daily hassles were even stronger predictors than major life events (e.g., Compas et al., 1985, 1993). Stress is supposed to have particularly negative consequences for an individual, when the individual experiences high levels of stress and simultaneously appraises a lack of skills to cope with this stress (Lazarus & Folkman, 1984).

The definition of individual coping by Lazarus and Folkman (1984, p. 141; see Chapter 3) is widely accepted in current research. Various coping strategies – as for example problem-focused coping, rumination, positive restructuring – have been examined in different contexts, in adulthood as well as in childhood and adolescence (Skinner & Zimmer-Gembeck, 2007). However, despite this vast amount of research, the problem that the proliferation of different ways of coping generated cannot be disregarded: The abundance of possible ways of dealing with stress is at least partly responsible for the difficult search for a consistent conceptualization of coping (Skinner & Zimmer-Gembeck, 2007).

Due to brain maturation and social development, coping skills broaden during early and mid-adolescence leading to a greater variety of coping strategies (Seiffge-Krenke, 2000). Accordingly, the competence to cope with stress increases during adolescence (e.g., Nieder & Seiffge-Krenke, 2001). Empirical studies, however, support that using more functional coping (e.g., active coping, problem solving, seeking support) buffers the impact of stress in adolescence, leading to fewer psychopathological symptoms and higher general well-being in the individuals (for an overview see Compas, Connor-Smith, Saltzman, Thomsen, &

Wadsworth, 2001; Garcia, 2010; Lohman & Jarvis, 2000). Dysfunctional coping styles (e.g., avoidance, denial, behavioral disengagement) have been associated with higher levels of internalizing and externalizing symptomatology (Seiffge-Krenke & Klessinger, 2000; Tolan, Gorman-Smith, Henry, Chung, & Hunt, 2002), and worse general health (Connor-Smith, Compas, Wadsworth, Thomsen, & Salzman, 2000; Steiner, Erickson, Hernandez, & Pavelski, 2002). For example, Seiffge-Krenke (2000) showed in a 3-years longitudinal study that daily hassles and critical life events alone only moderately predicted adolescents' symptomatology (i.e., internalizing and externalizing syndromes) across time. But when taking into account coping skills of the adolescents, higher levels of dysfunctional coping contributed to longitudinal prediction of symptomatology.

Especially social support from close persons (e.g., parents, peers, romantic partners) seems to be a unique resource for adolescents (Dumont & Provost, 1999). However, in late adolescence, the importance of romantic relationships compared to other relationships (parents/peers) increases while the influence of parents fades (Furman & Buhrmester, 1992; Furman & Shaffer, 2003; Seiffge-Krenke, 2003; Seiffge-Krenke & Ziegenhain, 2009). For example, Shulman (1993) showed that the availability of a romantic relationship buffers stress and enhances partners' active coping skills. Regarding gender differences, especially male adolescents seem to benefit from support in intimate relationships (Simon & Barrett, 2010). Whereas female adolescents' well-being was more closely associated with relationship involvement and recent break-ups; male adolescents' well-being was stronger related to experienced support within a current romantic relationship (Simon & Barrett, 2010).

3.3 Dyadic Coping in Adolescence

The focus of dyadic coping research has been put on adults (Bodenmann, 1995, 2008a); whereas dyadic coping in adolescent couples has been neglected so far. The question of if and

how late adolescents cope dyadically with stressful events has yet to be directly addressed. Much is known about how adolescents cope as individuals (e.g., DeMinzi, 2006; Seiffge-Krenke et al., 2009; Seiffge-Krenke & Lohaus, 2007), but we lack basic information about the role of dyadic coping in adolescent couples and its associations with both partners' relationship satisfaction and well-being.

The quality of coping generally increases with the quality and duration of the romantic relationship (Furman, 2002; Seiffge-Krenke, 2009; see also Chapter 2). The partner replaces parents and peers as primary support providers in late adolescence (Furman & Buhrmester, 1992; Seiffge-Krenke, 2003; Seiffge-Krenke & Ziegenhain, 2009), and self-disclosure and intimacy becomes increasingly important during adolescence (Collins & Sroufe, 1999; Furman & Winkles, 2012). Furthermore, for late adolescents, it is most important to have a romantic partner with the following characteristics: somebody who makes them feel understood, makes them feel validated as a person or to examine an equal balance of power in the romantic relationship (Bouchey, 2007; Galliher, Welsh, Rostosky, & Kawaguchi, 2004). All these findings suggest that dyadic coping may be relevant in late adolescence in the same way as in later life stages. Summing up, studying dyadic coping in late adolescent couples is of innovative significance as it has potential to clarify the role of dyadic coping in adolescence and to make a contribution to a better understanding of the functioning of these relationships.

4. Research Questions

Examining adolescents' romantic relationships is of high importance for a better understanding of processes within these relationships, and for research and practice to support adolescents and young adults to maintain and/or improve their current and future intimate relationships. As previously mentioned, dyadic coping may play an important role in this context. However, to our knowledge, most studies on romantic relationships in adolescence missed to include both romantic partners and accordingly ignored intra-dyadic processes between partners or used samples with high age diversity.

The present thesis is part of a larger project on adolescents' romantic relationships which has been funded by the Swiss National Science Foundation (SNSF; No: 100014_129699). The project focused on late adolescent couples (aged between 16 and 23) which were in stable romantic relationships since at least one year. Age range and duration of the relationships was chosen as longer relationship duration is associated with higher commitment to the relationship (Connolly & Johnson, 1996), higher levels of self-disclosure (Brown, 1999; Collins & Sroufe, 1999; Furman & Winkles, 2012) within the relationship and, accordingly, that dyadic coping may be increasingly important within these relationships compared to earlier developmental stages and less stable romantic relationships. The complete study design is depicted in Figure 4-1. Moreover, one year after the first investigation, all participants were invited to participate in a reduced online follow-up questionnaire. However, the main aim of this thesis was to start to fill up this gap of knowledge on dyadic coping in late adolescent couples.

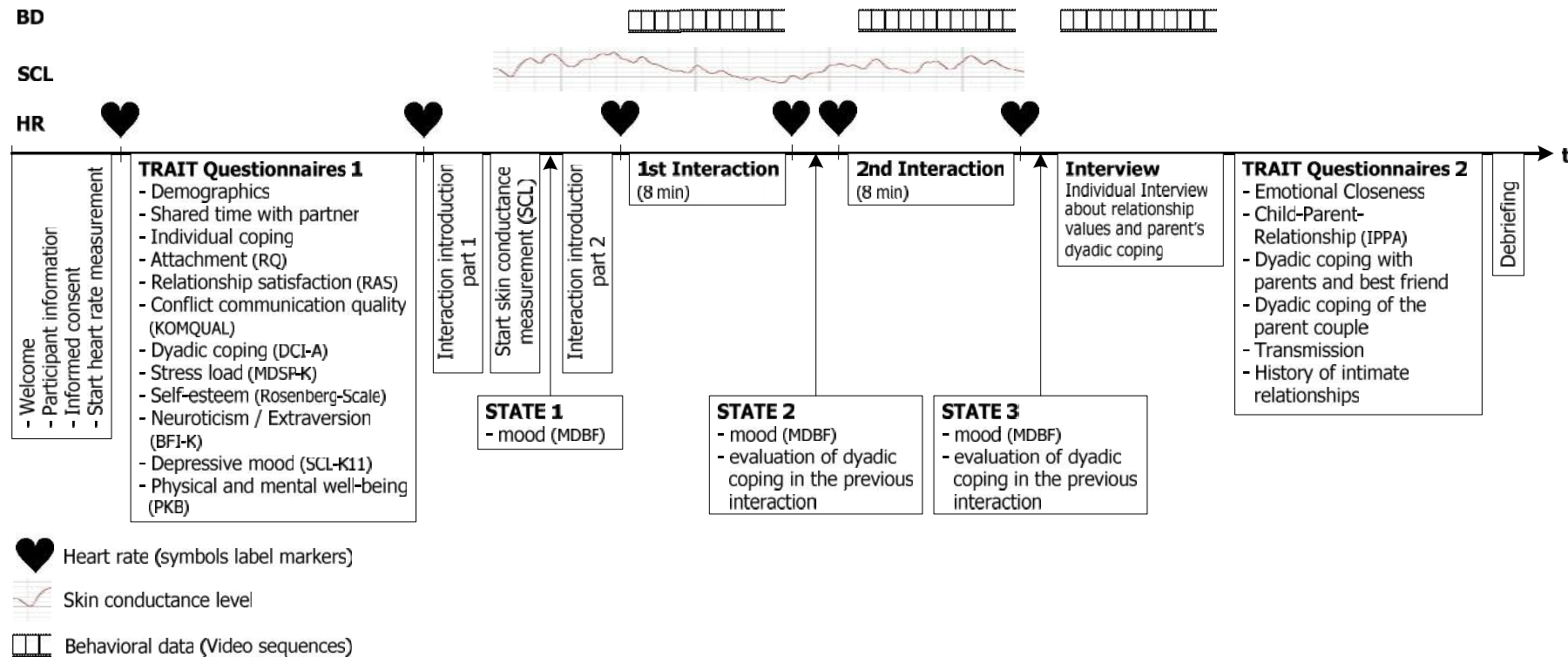


Figure 4-1. Complete study design of the Swiss National Science Foundation Project (SNSF; No: 100014_129699) *Partnerships in Adolescence* (PiA).

Study I

In the first study, described in Chapter 5, we investigated whether extra-dyadic stress is associated with intra-dyadic stress and relationship satisfaction in adolescent couples using an Actor-Partner Interdependence Model (Kenny, Kashy, & Cook, 2006). Moreover, the potentially buffering effect of dyadic coping on these associations was examined. The main aim of this study was to gain a better understanding of stress-spillover processes in late adolescent couples.

Study II

In the second contribution, depicted in Chapter 6, the mutual association of adolescent partners' individual and dyadic coping with relationship satisfaction and physical and mental well-being was examined. To determine the impact of dyadic coping beyond the impact of individual coping for adolescents' relationship satisfaction and well-being, multiple Actor-Partner Interdependence Models were used. According to differences found between female and male partners, gender differences were tested post-hoc.

Study III

The third study is described in Chapter 7. The goal of this study was to determine the impact of dyadic coping for adolescents' relationship satisfaction and stability over time. Accordingly, the predictive power of individual and dyadic coping for relationship satisfaction and relationship stability over one year was introduced using multiple and logistic regression analyses.

EMPIRICAL STUDIES

5. Study I: Stress, Dyadic Coping and Relationship Satisfaction in Adolescent Couples¹

Abstract

In adolescence, one of the most important development tasks is to build up sustainable intimate relationships. In adult couples, daily hassles emerging outside the relationship (extra-dyadic stress) can spillover into the relationship evoking conflicts between the partners (intra-dyadic stress), which itself has a negative effect on relationship satisfaction over time. This detrimental effect of stress spillover can be buffered by adequate dyadic coping skills of both partners. Using data from 124 late adolescent couples which were together since at least one year, we examined whether extra-dyadic stress is associated with intra-dyadic stress and relationship satisfaction in this developmental phase, and investigated the potential buffering effect of dyadic coping on these associations. Contrary to findings in adult couples, extra-dyadic stress was not directly associated with intra-dyadic stress and relationship satisfaction in adolescent couples. Nonetheless, dyadic coping moderated the association between extra-dyadic and intra-dyadic stress of adolescent females and males. Adolescents who perceived more dyadic coping from their partner reported less intra-dyadic stress, even when experiencing high extra-dyadic stress load, compared with those who perceive less dyadic coping. This study highlights the importance of investigating dyadic processes in intimate relationships in late adolescence and emerging adulthood to gain an accurate idea of these relationships and the associated developmental processes.

¹ Paper by Christina J. Breitenstein, Anne Milek, Fritjof W. Nussbeck, Joanne Davila and Guy Bodenmann. This study has been funded by the Swiss National Science Foundation (SNSF; No: 100014_129699). This paper will be submitted to the *Journal of Adolescence*.

Introduction

A growing body of research on romantic relationships in adolescence and emerging adulthood within the past 15 years reflects the increasing awareness of the importance of this topic (e.g., Collins, 2003; Collins et al., 2009; Florsheim, 2003b; Furman et al., 1999). Many researchers agree that building, exploring, and maintaining intimate relationships are key developmental tasks in adolescence. For example, recent studies show that adolescents' romantic relationships are important for mental and physical well-being, future relationship expectations and couple-related behaviors of both partners (Furman & Shaffer, 2003; Madsen & Collins, 2011). Though research on late adolescent students shows that at this age they start developing serious, intimate, and long-term relationships (Furman et al., 1999), we still know little about intra-dyadic processes, interdependence and mutual influence in adolescent couples.

A promising way to gain further insight into adolescent couples functioning is to adapt and test existing models and theories based on adult relationships (Furman, 2002). As stress has been identified as a powerful predictor of the quality and stability of intimate relationships in adulthood (e.g., Bradbury & Karney, 2010; Randall & Bodenmann, 2009), the aim of this study is to replicate the previous findings on the relationship between stress and relationship satisfaction in adult couples (Bodenmann, Ledermann, & Bradbury, 2007; Karney, Story, & Bradbury, 2005; Merz, Meuwly, Randall, & Bodenmann, 2014; Neff & Karney, 2004).

Stress and Coping in Adolescent Couples

Stress in Intimate Relationships

Stress has been identified as a consistent predictor of low quality and stability of close relationships in adulthood (e.g., Randall & Bodenmann, 2009; Story & Bradbury, 2004). In

the context of examining the influence of stress on close relationships, it is of great importance to differentiate between (a) the origin of stress (i.e. *extra-dyadic* vs. *intra-dyadic*), (b) the duration of a stressor (i.e. *acute* vs. *chronic*), and (c) the severity of stressors (i.e. *daily hassles* vs. *major life events*, or *minor* vs. *major stressors*) (Karney & Bradbury, 2005; Randall & Bodenmann, 2009). Especially chronic daily hassles originating from outside the relationship, such as chronic stress at work or with finances, seem to influence couple relationships in a disadvantageous way by reducing partners' shared time, energy and resources, and as well as, by increasing negative behaviors within the relationship as described in Bodenmann's stress-divorce model (Bodenmann, Charvoz, et al., 2007; Randall & Bodenmann, 2009). The phenomenon, that extra-dyadic stress spills over to the dyad, evoking intra-dyadic stress has been shown in different studies (Bodenmann, Ledermann, et al., 2007; Ledermann, Bodenmann, Rudaz, & Bradbury, 2010; Neff & Karney, 2004; Repetti, Wang, & Saxbe, 2009). Various studies also reported a negative association between chronic extra-dyadic daily hassles and relationship satisfaction (Falconier et al., 2013; Harper et al., 2000; Story & Repetti, 2006).

Based on these findings, we assume that similar processes may happen in adolescent couples. Adolescence is a time of particularly high stress characterized by manifold demands and challenges. The vast majority of day-to-day stress reported by adolescents, concerns social relationships, such as conflicts with parents, peers, close friends or romantic partners (Seiffge-Krenke, 2006). Other stressors stem from educational and career-related issues or dissatisfaction about one's development and future (Seiffge-Krenke et al., 2009). Comparable to adults, chronic daily hassles have recently been found to be stronger predictors for adolescents' mental and physical health than major life events (e.g., Compas et al., 1985, 1993). Accordingly, based on a systemic-transactional view of stress (Bodenmann, 1995),

effects of chronic extra-dyadic stress on intimate relationships in late adolescence might be similar to findings in adult couples.

While the impact of romantic relationship-related stress in the early and later stages of adolescence, for example due to building-up and exploring romantic relationships or going through a break-up, has been already addressed on an individual level (e.g., Nieder & Seiffge-Krenke, 2001; Seiffge-Krenke, 2011), to our knowledge, the impact of extra-dyadic stress on intra-dyadic stress and relationship satisfaction in late adolescent couples has not yet been examined.

Coping in Intimate Relationships

Research on adult couples has shown that interpersonal competencies, such as adequate communication skills and common coping with stress, play an important role in building and maintaining intimate relationships (Gottman, 1993; Gottman, Coan, Carrere, & Swanson, 1998; O'Brien, DeLongis, Pomaki, Puterman, & Zwicker, 2009). Specifically coping with stress dyadically has been found not only to buffer the impact of stress on relationships (Falconier et al., 2013), but also to strengthen the feeling of we-ness between the partners, leading to a more fulfilling, satisfying and stable relationship (Bodenmann, 1997; Cutrona, 1996).

Dyadic coping is a well-established and meaningful concept in relationship research and clinical work with couples (Bodenmann & Randall, 2012). It is based on a systemic-transactional view of stress and coping, and defined as the effort of both partners to engage in a stress management process, with the aim of creating or restoring the physical, psychological or social homeostasis within both partners as individuals, and within the couple as a unit (Bodenmann, 1997). Numerous studies found substantial associations between dyadic coping and marital functioning, mainly relationship satisfaction (Bodenmann et al., 2006; Herzberg,

2013; Papp & Witt, 2010), psychological and physiological well-being of both partners (Bodenmann et al., 2011), as well as chronic illness in adult couples (for an overview see Berg & Upchurch, 2007; Hagedoorn et al., 2008; Revenson, 2003).

It can be assumed that in late adolescence dyadic coping becomes increasingly important for both partners in a romantic relationship: First, adolescents perceive more support in their romantic relationships than in relationships with parents or peers (Furman & Shomaker, 2008). Second, as adolescents grow older, they are more likely to turn to the partner for support in stressful situations and are less likely to seek support from their parents (Furman & Shaffer, 2003). Third, the quality of coping with stress generally increases during late adolescence and early adulthood (Seiffge-Krenke et al., 2009). And finally, romantic relationships in late adolescence change toward greater intimacy, mutual trust, attachment, and affection (Furman, 2002; Nieder & Seiffge-Krenke, 2001). These findings suggest that dyadic coping may be relevant during this development phase similar to later life stages (Furman, 2002; Nieder & Seiffge-Krenke, 2001; Seiffge-Krenke et al., 2009).

Previous research on late adolescents indicates an association between partner support and relationship satisfaction (Cramer, 2006; Pinquart & Fabel, 2009), as well as between partner support and individual outcomes, such as mental health (Simon & Barrett, 2010) or a higher sense of mastery during the transition to adulthood (Surjadi, Lorenz, Wickrama, & Conger, 2011). Furthermore, in their study on college couples, Papp and Witt (2010) found dyadic coping to be a stronger predictor for relationship satisfaction than individual coping, emphasizing the relevance of this construct for relationship functioning. Nevertheless, there is a lack of research investigating the association between dyadic coping and relationship quality and its potential to buffer stress from spilling over into the relationship. Specifically, no such study has yet been performed on non-cohabitating, unmarried (and not yet engaged),

adolescent couples in committed romantic relationships which are common in Western European society.

Current Study

One significant and consistent predictor of adults' relationship quality – daily hassles and the potentially buffering effect of appropriate skills in dealing with these demands – has not yet been addressed in research on adolescent couples. To fill this gap and gain further insights into late adolescents' romantic relationships, the aim of this study was to replicate previous findings on the association between stress and relationship functioning (Bodenmann, Ledermann, et al., 2007; Karney et al., 2005; Merz et al., 2014; Neff & Karney, 2004). First, we hypothesize that chronic extra-dyadic stress in adolescent couples will be positively associated with chronic intra-dyadic stress, which in turn should be negatively related to relationship satisfaction (Bodenmann, Ledermann, et al., 2007; Merz et al., 2014). More specifically, chronic intra-dyadic stress is assumed to mediate the association between chronic extra-dyadic stress and relationship satisfaction in adolescent couples. Second, we hypothesize that dyadic coping might buffer the spillover of extra-dyadic on intra-dyadic stress (Merz et al., 2014). We expect weaker spillover from chronic extra-dyadic stress to intra-dyadic stress for adolescents who perceive higher levels of dyadic coping from their partner and in their relationship.

Method

Participants

Adolescent couples were recruited by means of local newspapers, schools, recreational facilities and social media. Individuals who contacted the research team were given a description of the study and screened to make sure that they meet the inclusion criteria.

Eligibility criteria were being a) in a romantic relationship for a minimum of one year, b) between 16 and 22 years of age, c) able to read and speak German and that d) both partners agreed to participate in the study. Overall, 181 couples registered for participation. Because of not meeting all eligibility criteria, 57 couples were not considered for participation.

Our final sample included 124 heterosexual Swiss couples. Their relationship duration was on average 2.0 years ($SD = 1.0$). Adolescent females were on average 18.8 years ($SD = 1.6$, range = 16.2 – 22.8) and adolescent males 19.5 ($SD = 1.6$, range = 16.0 – 22.8) years old. Most adolescents were living with their parents (91%); few lived alone (1%) or shared an apartment with peers (8%). None of the couples cohabited. Adolescents were still attending high school (40%), studying at university (23%), involved in vocational education (23%), employed (6%), or pursuing other activities (8%) as completing an internship or performing military service. In our sample of 124 adolescent females and 124 adolescent males, 65% and 62%, respectively, came from intact families in which they lived with their mothers and fathers; 8% of adolescent females and 4% of adolescent males lived with a step-parent, and 26% of females' and 32% of males' parents were separated or divorced.

Procedure

Data for this study were collected as part of a larger project on romantic relationships in adolescence and emerging adulthood. Each couple took part in a laboratory session of approximately one hour duration, where they completed demographics and questionnaires. Couples were accompanied during the entire time of participation by trained staff. Adolescents' assent and parents' consent for underage participants were obtained prior to the start of the investigation. Specifically, underage participants had been sent a description of the study and an informed consent for their parents and they were asked to bring along the signed form to the first appointment. All participants either brought a signed informed consent from

their parents or if of full age, consented to participate voluntarily. Participating couples received an incentive of 100 Swiss Francs (approximately 105 US Dollars).

Measures

Stress. We used a short version of the *Multidimensional Stress Questionnaire for Couples* (MSQ-P, Bodenmann, Schär, & Gmelch, 2008) to measure chronic extra-dyadic and chronic intra-dyadic minor stress with one item each. Participants rated how much daily hassles they experienced within the past 12 months a) within their relationship (e.g., arguments with your partner, disruptive or reserved behavior of your partner, or feeling neglected by your partner) and b) outside the relationship (e.g., stress at work or in school, conflicts with parents, peers or close friends, stress related to your living situation or finances). Each item has been described by a whole series of examples as displayed above. Ratings ranged from 1 (= *not at all*) to 4 (= *a lot*) with higher values representing a higher chronic stress load in the specific context (i.e. *extra-dyadic* vs. *intra-dyadic minor stress*).

Dyadic Coping. The respondent's perception of how the partner provides support and coping in times of stress was measured using the partner's supportive dyadic coping subscale of the *Dyadic Coping Inventory* (DCI; Bodenmann, 2008). The inventory was linguistically slightly simplified to guarantee adolescents' understanding of all items. Partner's positive dyadic coping (e.g., "*My partner gives me the feeling that he/she understands me*") and negative dyadic coping (e.g., "*My partner is not taking my stress seriously*") was assessed with 13 items using a five-point Likert scale (1 = *never*, 5 = *very often*). The mean of positive and reverse negative items indexes partner's dyadic coping. The scale was moderately reliable with $\alpha = .75$ for female adolescents and $\alpha = .79$ for male adolescents, respectively.

Relationship Satisfaction. We assessed relationship satisfaction with the German version of the *Relationship Assessment Scale* (RAS; Hendrick, 1988) by Sander and Böcker

(1993). The seven items were rated on a five-point agreement scale, ranging from 1 (= *not at all*) to 5 (= *completely true*). Scores were computed by averaging the items. Higher scores represented higher relationship satisfaction. Internal consistency was acceptable ($\alpha = .70$ for female adolescents, $\alpha = .73$ for male adolescents).

Data Analysis

First, we conducted descriptive analysis of the preliminary study variables to determine whether there are any mean differences between adolescent females and males. As outlined in Figure 5-1, we combined for the main analysis an Actor-Partner Mediator Model (APMeM; Barr, Simons, & Stewart, 2013; Ledermann et al., 2010; Ledermann, Macho, & Kenny, 2011) with an Actor-Partner Moderator Model (APMoM; e.g., Bodenmann, Ledermann, et al., 2007; Cook & Kenny, 2005). These models are two extensions of the well-known Actor-Partner Interdependence Model from Kenny and colleagues (APIM; Kenny et al., 2006), taking into account that individuals are nested within a couple (Atkins, 2005).

Our model contains of four manifest variables for each partner arranged in pairs, including two independent variables, two mediator variables, two moderator variables and two dependent variables. Besides the direct actor and partner effects, there is a correlation between the two independent variables, controlling for the partner effect when estimating an actor effect and vice versa. Additionally, residuals of the moderator and dependent variables are correlated to indicate their shared unexplained variance (Cook & Kenny, 2005). We tested path coefficients to be equal across gender, implying the same associations of the variables across gender. Each pair of path coefficients was tested independently relying on the chi-square difference test for nested models. We only report the final model with the complete set of equal path coefficients.

In line with Shrout and Bolger (2002) the assumption of mediation is verified if there are significant indirect effects (IEs) of independent variables on dependent variables through mediator variables. The assumption of moderation is verified if the interaction coefficient of the independent and moderator variable is statistically significant, regardless of whether there is a direct effect of the predictor or moderator on the criterion or not (Cohen, Cohen, West, & Aiken, 2003). All predictors were centered as recommended by Aiken and West (1991) to reduce problems associated with multicollinearity and to improve interpretability. The model was estimated with maximum likelihood bootstrap procedure (500 samples) and controlled for participants' age using the structural equation modeling program Mplus® (Muthén & Muthén, 1998 - 2012).

Results

Preliminary Analyses

Means and standard deviations of the main study variables are reported in Table 5.1. We found significant differences in relationship satisfaction, chronic extra-dyadic daily hassles and age between female and male adolescents. Female adolescents reported higher relationship satisfaction ($t(123) = 2.42, p < .05$) and more extra-dyadic stress ($t(121) = 2.32, p < .05$) than male adolescents. Furthermore, female adolescents were significant younger than their partners ($t(123) = 6.80, p < .001$). Adolescent females and males did not differ in any of the other variables.

Table 5.1 shows correlations among measured variables for adolescent females (above the diagonal), for adolescent males (below the diagonal), and between gender (on the diagonal). Contrary to our expectations, we did not find a correlation between extra-dyadic stress and intra-dyadic stress (female adolescents: $r = .06, ns$; male adolescents: $r = .04, ns$), nor a correlation between extra-dyadic stress and relationship satisfaction in adolescent

females ($r = -.07$, ns) and males ($r = -.10$, ns). These preliminary findings suggest that extra-dyadic stress is not associated with relationship satisfaction in adolescent couples, neither for females nor for males.

As assumed, intra-dyadic stress (female adolescents: $r = -.29$, $p < .01$; male adolescents: $r = -.50$, $p < .001$) and partner's dyadic coping (female adolescents: $r = .55$, $p < .001$; male adolescents: $r = .53$, $p < .001$) were substantially correlated with relationship satisfaction. In other words, more perceived dyadic coping from the partner and less intra-dyadic stress were associated with higher relationship satisfaction for both, females and males. Within-dyad correlation of extra-dyadic stress ($r = .24$, $p < .01$) and partners' dyadic coping ($r = .19$, $p < .05$) were relatively low, indicating that these variables only partially shared common variance. The between-partner correlation is higher for intra-dyadic stress ($r = .40$, $p < .001$) than for extra-dyadic daily hassles ($r = .24$, $p < .01$), which can be taken as a good sign for content validity of these variables.

The Association of Extra-dyadic Daily Hassles, Intra-dyadic Stress and Relationship Satisfaction

Although no correlations between extra-dyadic daily hassles and model-relevant mediators and dependent variables have been found, we tested the model as it is proposed in the context of adult relationship research (Bodenmann, Ledermann, et al., 2007; Merz et al., 2014). The aim of this explorative approach is to detect partner-effects, to investigate the function of dyadic coping as a moderator, and to compare the final model for adolescent couples with the suggested model for adult couples. Due to the statistically significant association between adolescent female's age and reported intra-dyadic stress ($r = -.22$, $p < .05$) and the age difference between female and male adolescents ($t(123) = -6.80$, $p < .001$), we controlled our model for both partners' age.

Unstandardized estimates of the model testing our hypotheses are presented in Figure 5-1 and Table 5.2. According to model fit criteria proposed by Hu and Bentler (1999), the final model fits the data well ($\chi^2 = 8.851$, $df = 12$, ns ; RMSEA = .000; SRMR = .037; CFI = 1.000). Chi-square difference tests revealed no gender differences in the actor or partner effects of the proposed model, with the exception of the partner effects between intra-dyadic stress and relationship satisfaction. Unlike adolescent males, adolescent females' relationship satisfaction was tendentially related to their partners' intra-dyadic stress ($S = .11$, $p = .04$; $\chi^2 = 3.45$, $df = 1$, $p = .003$).

As already assumed by correlation coefficients, we neither found an association between extra-dyadic and intra-dyadic stress ($S = .04$, ns), a direct effect of extra-dyadic daily hassles on relationship satisfaction ($S = -.03$, ns), nor a mediating effect of intra-dyadic stress between the association of extra-dyadic stress and relationship satisfaction for both, adolescent females and males. Indirect effects of extra-dyadic daily hassles on relationship satisfaction are presented in Table 5.2. Accordingly, extra-dyadic stress seems not to be associated with relationship relevant variables in adolescent couples. Therefore, we have to reject our first hypothesis. Nevertheless, we found significant actor effects for the association between intra-dyadic stress and relationship satisfaction ($S = -.20$, $p = .00$). Higher levels of intra-dyadic stress covariates with lower levels of relationship satisfaction for adolescent females and males.

Does Dyadic Coping Moderate These Associations?

The proposed model is additionally taking into account the influence of adolescents' perception of dyadic coping provided by their partner as a moderator. We found strong direct effects between dyadic coping and reported intra-dyadic stress ($S = -.37$, $p = .00$) as well as between dyadic coping and relationship satisfaction ($S = .47$, $p = .00$). Higher scores in dyadic

coping are highly associated with less intra-dyadic stress and higher relationship satisfaction for both, adolescent females and males.

The model revealed significant moderation effects of dyadic coping for the association between extra-dyadic daily hassles and intra-dyadic stress ($S = .20, p = .04$; see Figure 5-2) for female and male partners. When extra-dyadic stress is low, individuals perceiving less dyadic coping from their partner reported more intra-dyadic stress compared to those indicating more dyadic coping. When extra-dyadic stress is high, the difference in reported intra-dyadic stress between these groups is even greater. Moreover, participants perceiving low dyadic coping from their partner reported more intra-dyadic stress when exposed to more extra-dyadic stress originating outside the relationship than those reporting less extra-dyadic stress. Conversely, adolescents receiving high dyadic coping from their partner and who are exposed to more extra-dyadic daily hassles report even less stress within the relationship compared to those reporting deeper levels of extra-dyadic stress.

The interaction of extra-dyadic stress and partners' dyadic coping was not statistically significant associated with relationship satisfaction ($S = -.12, p = .17$; see Figure 5-1), and accordingly no moderation effect has been found. Accordingly, the second hypothesis, that partner's dyadic coping moderates the association between extra-dyadic stress and intra-dyadic stress as well as between intra-dyadic stress and relationship satisfaction in adolescent couples, was partially supported. While explained variance in intra-dyadic stress for both, adolescent females and males, was relatively low (females: $R^2 = .108$; males: $R^2 = .085$), the proposed model clarified substantial variance in relationship satisfaction in adolescent couples (females: $R^2 = .328$; males: $R^2 = .412$; see Figure 5-1).

Discussion

The aim of this study was to replicate previous studies conducted with adult couples on the association between extra-dyadic stress, intra-dyadic stress and relationship satisfaction, moderated by dyadic coping within a sample of late adolescent couples. A major purpose was to gain further insights into intra-dyadic processes of relationships in late adolescence. Due to the sparse knowledge about the role of stress and dyadic coping in adolescent romantic relationships, our hypotheses were mainly driven by findings on adult relationships (e.g., Randall & Bodenmann, 2009; Story & Bradbury, 2004), by stress and coping studies on adolescent individuals (e.g., Nieder & Seiffge-Krenke, 2001; Seiffge-Krenke et al., 2009), and the current stage of knowledge about romantic relationships in adolescence and emerging adulthood in general.

In summary, results show that there was no mediation effect of chronic intra-dyadic stress between chronic extra-dyadic stress and relationship satisfaction, and adolescents' relationship satisfaction was not significantly associated with their self-reported extra-dyadic stress. Therefore, our study could not entirely replicate findings of various studies found in adult relationships (Bodenmann, Ledermann, et al., 2007; Karney et al., 2005; Merz et al., 2014; Neff & Karney, 2004). However, in line with previous research, chronic intra-dyadic stress has been found to be negatively associated with relationship satisfaction (Gottman, 1994; Randall & Bodenmann, 2009). Additionally, even if we did not find main effects between extra-dyadic and intra-dyadic stress in our sample, associations between these variables differed for adolescents who perceived less dyadic coping versus adolescents who perceived high dyadic coping from their partners. The key findings of this study are discussed below.

Contrary to our expectations, chronic extra-dyadic stress was neither associated with chronic intra-dyadic stress nor with relationship satisfaction in our sample. There are several

possible explanations for this finding: First, it is likely that compared with adults, adolescents are more familiar of making use of other social resources (e.g., parents or friends) when faced with stress. For adults, the partner is one of the main refuges in stressful times. In late adolescence, rather than declining when romantic relationships emerge and the salience of the partner increase, emotional support from friends and parents remain stable and important (Connolly & Johnson, 1996). Accordingly, late adolescents may be less reliant on their partner for stress regulation and/or may have fewer expectations towards the partner that he or she is available and supportive in times of stress. Second, adolescent partners in our sample did not cohabit, and accordingly shared their time and daily life only limited. Even taken into account that adult couples spend most time a day apart, they meet at home and usually have enough opportunities to cope together. Adolescents who still live with their parents have more opportunities to avoid the partner in stressful times and to discuss their problems with parents. So, it may be that romantic relationships in adolescence have more the function to spend pleasant moments together and to avoid or to distract from burdensome topics. Finally, it is possible that different sources of stress in adolescents' daily life have different impacts on their romantic relationships. It may be, that some stressful situations (e.g., stress with parents or close friends) affect romantic relationships in adolescence in a more harmful way than others (e.g., stress at work or in school) and that the stress measure used in this study should have been specifically adapted to the adolescents life conditions.

Dyadic coping was strongly associated with intra-dyadic stress and relationship satisfaction for both partners, indicating that dyadic coping is highly relevant for late adolescents' intimate relationships. This result is in line with previous empirical studies highlighting the importance of dyadic coping for adolescents' relationship satisfaction (Cramer, 2006; Papp & Witt, 2010; Pinquart & Fabel, 2009) as well as with findings on

dyadic coping and relationship satisfaction in adult couples (Bodenmann et al., 2011, 2006; Herzberg, 2013; Iafrate, Bertoni, Donato, & Finkenauer, 2012; Papp & Witt, 2010).

Above all, dyadic coping may have a stress buffering effect on the spillover of stress from outside the relationship into the relationship even in adolescent couples, as it moderated the non-significant association between extra-dyadic stress and intra-dyadic stress. This is the effect which can be expected, taking into account that dyadic coping is a shared stress management process which is important for protecting the relationship from harmful influences, and becomes particularly important when the source of stress is outside the relationship (Bodenmann, 1997). Chronic extra-dyadic daily hassles were positively associated with intra-dyadic stress for those adolescents who perceived less dyadic coping from their partners. Conversely, perceiving high dyadic coping from the partner when experiencing high extra-dyadic stress might bring some adolescent couples even closer together. Partners' supportiveness in turbulent times might lead to less intra-dyadic stress. A possible explanation for this finding is that additionally to the stress-related function of dyadic coping, there is a relationship-related one, for which dyadic coping could be seen as investment into the relationship itself and strengthens the feeling of we-ness within the couple (Bodenmann et al., 2006; Cutrona, 1996). This function might be especially important for relationships in adolescence.

There is strong evidence that a high amount of intra-dyadic stress (e.g., different goals, attitudes, needs and desires) has a high impact on relationship satisfaction of both partners (see Randall & Bodenmann, 2009). So it is not surprising that we found an association between these two variables even in adolescent couples. However, it is interesting that the actor effects were weaker than in empirical studies in adult relationships (Bodenmann, Ledermann, et al., 2007; Merz et al., 2014). Additionally, it should be taken into account that

due to the varying associations of extra- and intra-dyadic stress on relationship satisfaction, it is conceptually highly important to distinguish between these different sources of stress.

Limitations and Future Research Directions

When interpreting the results of this study, several limitations must be noted: First, our data were cross-sectional which means that the temporal or causal nature of the associations between the variables cannot be determined. Long-term studies on this topic would be needed for investigating developmental processes throughout adolescence and young adulthood. Second, the present study used self-report measures, with the possibility of biases in the assessed variables as they could be influenced by third variables (e.g., the idealization of the partner). Future research should include observational data for an unbiased perspective, for example of both partners' dyadic coping behavior. Third, the used stress measure may underestimate the amount of stress adolescents experience in their daily life, and/or the specific characteristics of this stress and its impact on their relationship. The stress scale used was developed for adult couples and it is likely that a specific questionnaire focusing on extra-dyadic stress that most adolescents face should be construed. Therefore it is not clear whether the finding that extra-dyadic stress is not spilling over to intra-dyadic stress is typical for adolescent couples or whether it is an artifact of measurement. It would be of great interest for further studies to distinguish between different sources of stress. For example social stress (e.g., stress with parents and close friends), educational or work stress (e.g. school-related stress), or other daily hassles emerging outside the relationship (e.g., financial stress, leisure stress). Despite these limitations our results indicate that the ability to deal with stress dyadically is already important in adolescent couples, even if extra-dyadic stress may not yet play a crucial role in these relationships.

Conclusion

Romantic relationships in late adolescence and young adulthood are already characterized by strong emotional bonds, serious commitment, intimacy, and support. Accordingly, these relationships are more similar to adult relationships than to romantic relationships in early and mid-adolescence (Connolly & Goldberg, 1999; Connolly & Johnson, 1996; Shulman et al., 2010). Nevertheless, romantic relationships in late adolescence differ from relationships in adulthood in some aspects: Late adolescent partners seldom cohabit, individuation from parents and identity development are still key topics, and investment opportunities into the relationships itself are limited. It would be of great interest for future research to have a closer look to the similarities and differences between relationships in late adolescence and adulthood.

The current study draws attention to this special group and emphasizes that dyadic skills already appear to be important in late adolescence. This could serve as a clue that it might be useful to start relationship education early in lifetime, possibly before couples move together. An adaption of the Couples Coping Enhancement Training (CCET; Bodenmann & Shantinath, 2004) for adolescent couples might be requested in light of these findings.

Table 5.1

Descriptives and correlations

Variables	Descriptives					Bivariate Correlations				
	Females		Males		<i>t</i>	1	2	3	4	5
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>						
1 Relationship Satisfaction	4.46	0.40	4.37	0.42	2.42*	.55***	-.29**	-.07	.55***	.13
2 Intra-dyadic Stress (IS)	1.86	0.52	1.87	0.57	-0.37	-.50***	.40***	.06	-.21*	-.22
3 Extra-dyadic Stress (ES)	2.41	0.80	2.21	0.79	2.32*	-.10	.04	.24**	-.17 [†]	.13
4 Partner's dyadic coping (DCP)	4.23	0.40	4.19	0.41	0.87	.53***	-.36***	.06	.19*	.07
5 Age	18.83	1.57	19.51	1.64	-6.80***	.06	-.08	-.01	.04	.76***

Note. Female adolescents' correlations are above, male adolescents' are under the diagonal. Correlations between female and male adolescents are printed in bold.

[†] $p < .10$; * $p < .05$; ** $p < .01$; *** $p < .001$

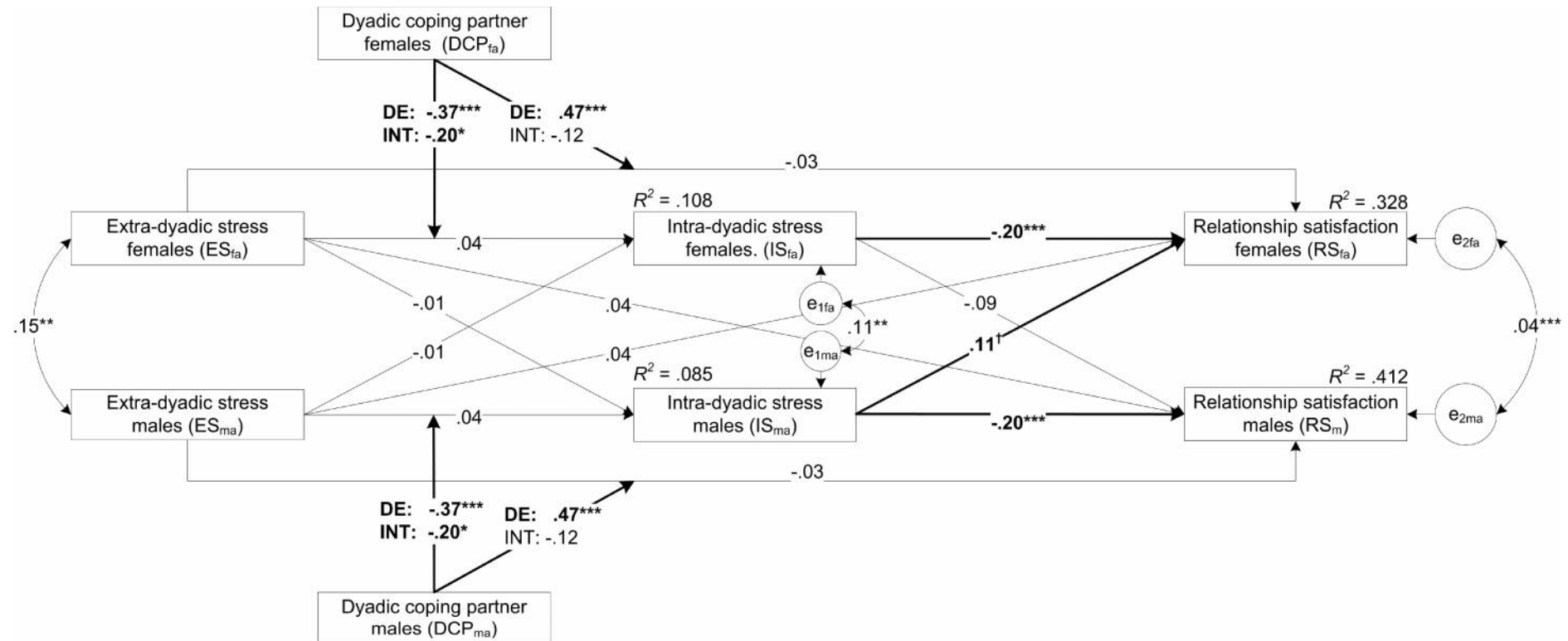


Figure 5-1. Actor-Partner Interdependence Model with extra-dyadic stress (ES) as independent, intra-dyadic stress (IS) as mediator and relationship satisfaction (RS) as dependent variables and partner's dyadic coping (DCP) as moderators. Unstandardized maximum likelihood estimates are presented. For sake of clarity of the presented model not all correlations of the independent variables are depicted. All independent variables are allowed to correlate. The effect of age was partialled out from all variables in the model. DE = moderator's direct effect; INT = interaction of independent and moderator variable; fa = female adolescents; ma = male adolescents. † $p < .10$; * $p < .05$; ** $p < .01$; *** $p < .001$.

Table 5.2

Indirect effects of the association of relationship satisfaction on extra-dyadic stress mediated by intra-dyadic stress

Effect	IE	SE	<i>p</i>	95% CI
ES _{fa} → IS _{fa} → RS _{fa}	-.01	.01	.348	[-.03, .01]
ES _{fa} → IS _{ma} → RS _{fa}	-.00	.01	.850	[-.02, .01]
ES _{ma} → IS _{fa} → RS _{fa}	.00	.01	.830	[-.02, .03]
ES _{ma} → IS _{ma} → RS _{fa}	.00	.01	.447	[-.01, .02]
ES _{ma} → IS _{ma} → RS _{ma}	-.01	.01	.348	[-.03, .01]
ES _{ma} → IS _{fa} → RS _{ma}	.00	.01	.850	[-.01, .02]
ES _{fa} → IS _{ma} → RS _{ma}	.00	.01	.830	[-.02, .03]
ES _{fa} → IS _{fa} → RS _{ma}	-.00	.00	.457	[-.03, .01]

Note. Unstandardized maximum likelihood estimates are presented. First line is read as female adolescents' extra-dyadic stress (ES_{fa}) on female adolescents' intra-dyadic stress (IS_{fa}) on female adolescents' relationship satisfaction (RS_{fa}). IE = indirect effect; fa = female adolescents; ma = male adolescents.

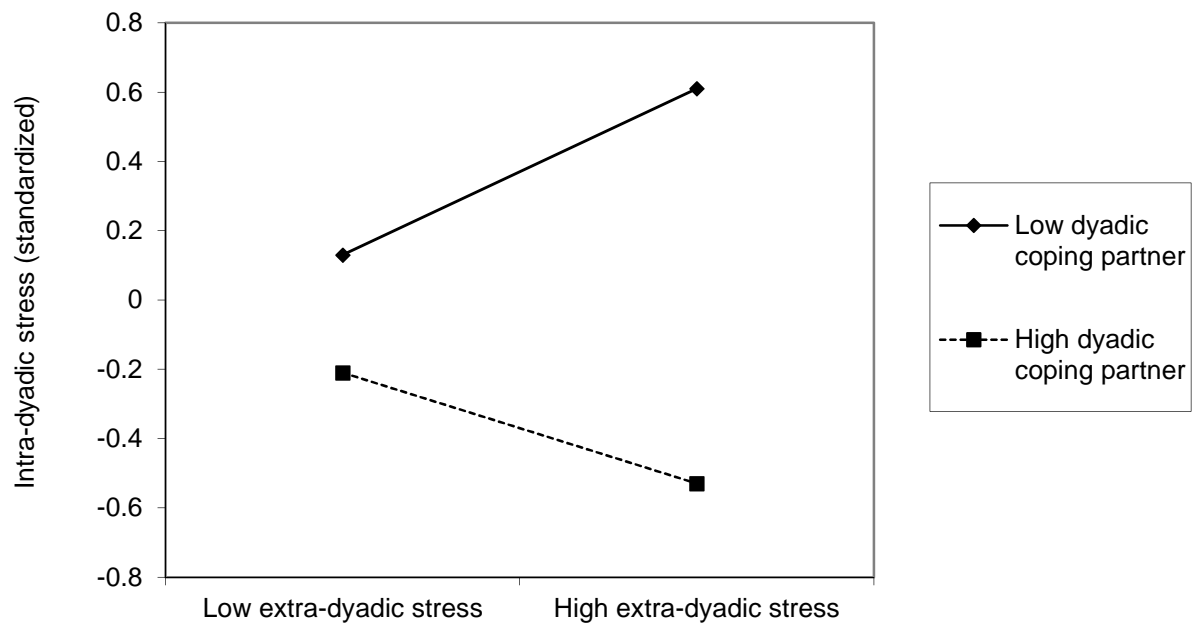


Figure 5-2. Extra-dyadic stress and intra-dyadic stress moderated by dyadic coping for female and male adolescents. Model is controlled for partner's extra-dyadic stress, partner's intra-dyadic stress and both partners' age.

6. Study II: Dyadic Coping and Its Association with Relationship Satisfaction and Well-Being in Adolescent Couples²

Abstract

Individual and dyadic coping skills have been found to be of high importance for relationship satisfaction and both partners' well-being in adulthood. In adolescence and emerging adulthood establishing and maintaining intimate relationships are key developmental tasks. To gain further insights on the role of these skills in romantic relationships and their importance for both partners in this specific stage of development, the association of individual and dyadic coping with relationship satisfaction and physical and mental well-being was examined. Questionnaire data were collected from $N = 130$ heterosexual adolescent couples ($N = 260$ individuals; aged 16 to 23 years) which were in a stable romantic relationship since at least one year. Considering partners' interdependence and the dyadic structure of the data Actor-Partner-Interdependence Models were used to explore the associations. Results indicated that dyadic coping is an even stronger (statistical) predictor for adolescents' relationship satisfaction than individual coping. Furthermore, perceived dyadic coping in the romantic relationship seems to be associated with physical and mental well-being, especially for males. Our study highlights the importance of dyadic coping in adolescents' romantic relationships.

Introduction

One of the most important development tasks in adolescence is to build up and explore romantic relationships (Brown et al., 1999). Furthermore, it is supposed that these first

² Paper by Christina J. Breitenstein, Anne Milek, Fritjof W. Nussbeck and Guy Bodenmann. This study has been funded by the Swiss National Science Foundation (SNSF; No: 100014_129699). This paper will be submitted to the *Journal of Research on Adolescence*.

romantic experiences influence future relationship assumptions and behavior in adulthood (Madsen & Collins, 2011). In this context, late adolescence and emerging adulthood (age of 16-25) are supposed to be the most important period in romantic development (Brown et al., 1999; Furman & Shaffer, 2003). However, even if research on adolescents' romantic relationships increased in the last decade (Collins et al., 2009), there are still a lot of unexplored domains. Especially intra-dyadic processes between adolescent partners have been examined only limited until this point of time. Examining processes and associations in couples on a dyadic level is highly important because they reveal more information as individual-centered approaches by considering interdependence and systemic influences between partners (Furman & Simon, 2006). This study aims to address the gap of understanding dyadic processes in the research on late adolescent couples. Therefore and because coping skill have been found to be of high importance in adults' intimate relationships, the associations of individual and dyadic coping with relationship satisfaction and well-being were examined for couples in this sensitive stage of romantic development.

Coping in Adolescence

Adolescence is a time of various physical (e.g., hormonal changes, sexual maturity) and psychosocial changes (e.g. detachment from parents, identity development). Due to these changes, adolescents are generally faced with a high amount of stress (Seiffge-Krenke et al., 2009). However, most adolescents master this stressful period of development successfully (Petersen, Kennedy, & Sullivan, 1991). Empirical findings suggest a general increase of coping competencies during adolescence (Nieder & Seiffge-Krenke, 2001). Beside conceptual and methodological difficulties in investigating individual coping, more functional coping styles (e.g., active coping, problem solving, analyzing the situation, seeking support) have been associated with normative development and psychological adjustment, whereas dysfunctional coping styles (e.g., withdrawal or avoidance) have been found to be more

frequently related to maladaptation in adolescence and later stages of life (e.g., Compas et al., 2001, 1993; Seiffge-Krenke, 1995, 2000). For example, adolescents with more functional individual coping competencies have been found to report lower levels of depressive symptoms (Seiffge-Krenke & Klessinger, 2000), higher levels of self-esteem (Mullis & Chapman, 2000), fewer behavioral problems (Tolan et al., 2002), and fewer general psychopathological symptomatology (Seiffge-Krenke, 2000). In contrast, dysfunctional individual coping styles have been found to be associated with poorer general health and worse health risk behaviors compared with individuals using more functional coping strategies (Steiner et al., 2002).

In particular, interpersonal resources (i.e., support from loved ones) are supposed to be highly relevant for adolescents' physical and mental well-being (e.g., Auslander, Short, Succop, & Rosenthal, 2009; Bonica & Daniel, 2003; Dumont & Provost, 1999). In late adolescence the importance of romantic relationships compared to other relationships (parents/peers) increases, while the influence of parents fades (Connolly & Johnson, 1996; Furman & Shaffer, 2003). Late adolescents involved in romantic relationships may therefore be less likely to seek support from their parents but more likely to turn to their partner for getting assistance in stressful situations.

A Systemic-Transactional View of Coping in Intimate Relationships

Research in adult couples suggested that dyadic coping with stress is one of the most important aspects for quality and stability of intimate relationships (e.g., Bodenmann, 2005). Providing and getting support in intimate relationships is supposed to be an interactive, dynamic and reciprocal process as described in Bodenmann's *Systemic-Transactional Theory* of stress and coping (Bodenmann, 1995). Dyadic coping is used when one or both partners face stressful situations. Even if the stress concerns only one partner directly, it may spillover into the relationship and to the other partner, when (a) the stress exceeds individual coping

resources, (b) when the stress is long-lasting and severe, or (c) when daily stressors accumulate. In these cases, or when both partners are affected by the stressful event, partners engage in a reciprocal process to maintain or restore the homeostasis within the relationship (Bodenmann, 1995). This reciprocal process includes the stress expression of one partner, the perception of these signals by the latter partner and the subsequent reaction of this partner (Bodenmann, 2008a). Accordingly, dyadic coping is distinct from individual coping, more than two individual's coping efforts, and characterized by how intimate partners cope in stressful times together as a unit (Berg & Upchurch, 2007; Bodenmann, 1995, 1997; Furman & Simon, 2006).

Different dimensions of dyadic coping are distinguishable: *Positive supportive dyadic coping* means supportive actions of one partner for the other without overtaking his/her own efforts to cope with the situations completely (e.g., showing empathy, declaring one's solidarity). *Negative dyadic coping* refers to superficial, ambivalent or hostile behaviors as reaction of the partner's stress expression (e.g., blaming the partner for not coping well enough with stress, taking the partner's stress not serious). These first two forms of dyadic coping are especially relevant when only one partner is affected by stress. A third dimension, *common dyadic coping*, refers to a symmetric and complementary dyadic coping process in which both partners engage and which takes place when the stress concerns the couple (e.g., engaging in a serious discussion about the problem and thinking of what has to be done, helping each other to put problem in perspective and seeing it in a new light) (Bodenmann, 1995, 1997).

Bodenmann (2000) conceptualized individual and dyadic coping to be interrelated. Individuals who are affected by stress attempt to cope first individually, and draw only on their dyadic resources when their individual coping efforts fail or the stress concerns both partners. However, a strict time-sequence in these coping efforts is not assumed, rather a successive coexistence (Bodenmann, 2000). The advantage of dyadic coping compared with

individual coping for intimate relationships is that coping together with the partner as a team does not only reduce both partners' stress, but also strengthen a couples' feeling of we-ness and cohesion (e.g., Bodenmann, 2008a; Cutrona, 1996). Consequently, in several studies on adult couples dyadic coping has been found to be an even stronger predictor for relationship satisfaction than individual coping (e.g., Bodenmann et al., 2011; Herzberg, 2013; Papp & Witt, 2010).

Dyadic Coping in Adolescents' Romantic Relationships

Dyadic coping has been found to play an important role in understanding relationship functioning and well-being in adult partners (e.g., Berg & Upchurch, 2007; Bodenmann, 2005; Bodenmann et al., 2011). As romantic relationships in adolescence increase in intimacy and affection with age (e.g., Brown, 1999; Nieder & Seiffge-Krenke, 2001), it can be supposed that dyadic coping becomes increasingly important for late adolescents' relationship satisfaction and well-being as well. For example, Bouchey (2007) found positive partner characteristics (e.g., feeling understood or accepted by the partner) to be among the most important aspects in romantic relationships for late adolescents. Furthermore, Furman and Shomaker (2008) reported that adolescents subjectively perceived more support in their romantic relationships compared with other close relationships (i.e., parents, friends). Accordingly, support from the partner is of high importance for adolescents.

Surprisingly, we still know few about the mutual interdependence between romantic partners in adolescence (Collins et al., 2009). By now, only a few empirical studies examined adolescent couples with a dyadic approach (Furman & Simon, 2006). For example, Zimmer-Gembeck and Ducat (2010) found that higher similarity in the experience of positive romantic behaviors within adolescent couples was associated with better well-being of both partners. However, to our knowledge, this study is among the first introducing the mutual influence of

individual and dyadic coping on relationship satisfaction and partners' well-being in adolescent couples.

Purpose of the Current Study

The present study aims to examine the association of individual and dyadic coping with relationship satisfaction and physical and mental well-being within late adolescent couples with an explorative approach. Specifically, we were interested in the following questions: Does dyadic coping play a role in adolescents' perception of relationship satisfaction? Is this association still relevant when considering individual coping strategies? Is there an interplay between dyadic coping and physical and mental well-being in adolescent couples?

Based on sighted research, we hypothesized first that (H1) dyadic coping would be associated with relationship satisfaction in adolescent couples as it has been found in adult couples. Since several empirical studies found positive and negative dyadic coping to be strongly associated with relationship satisfaction (e.g., Bodenmann et al., 2011; Iafrate, Bertoni, Margola, Cigoli, & Acitelli, 2012; Merz et al., 2014; Wunderer & Schneewind, 2008). Second, we hypothesized (H2) that dyadic coping is an even stronger predictor for adolescent partners' relationship satisfaction than individual coping skills. As mentioned above, in several studies on the interplay between individual and dyadic coping and their association with relationship satisfaction, dyadic coping has been found to be stronger associated with relationship satisfaction than individual coping (e.g., Bodenmann et al., 2011; Herzberg, 2013; Papp & Witt, 2010). Even though partner first try to cope with stress individually (Bodenmann, 2000), dyadic coping is supposed to be of higher relevance for adolescent couples' relationship satisfaction. Based on the previously depicted research, that social support is associated with adolescents' well-being and that the intimate partner becomes increasingly important in late adolescence, we finally hypothesized (H3) that dyadic coping contributes variance in adolescents' physical and mental well-being beyond individual coping.

Method

Participants

The initial sample size consisted of $N = 130$ heterosexual adolescent couples with an average relationship duration of 24 months ($SD = 12$ months). Participants were recruited by advertisements in newspapers, social media, recreational facilities/centers and schools. Eligibility requirements to participate in the study were (a) being in a stable relationship for at least one year, (b) both partners had to be between 16 and 22 years of age, (c) were able to read and speak German, and (d) both partners agreed to participate in the study.

Female adolescents were on average 18.9 years ($SD = 1.5$, $Range = 16.2$ -22.8 years) of age and significantly younger than male adolescents ($M = 19.6$ years, $Range = 16.0$ -22.8 years), $SD = 1.6$; $t(129) = 7.20$, $p < .001$). Most participants were Swiss (86%; 82%) or stem from other European countries like Germany, Spain or Italy (12%; 16%). Adolescent partners generally lived with their parents (87%; 85%), a few lived alone (1%; 1%), shared an apartment with peers (8%; 10%) or cohabitated (4%). The majority reported to attend high school (44%; 32%), university (27%; 23%), or an apprenticeship (20%; 25%). Other participants were employed (2%; 11%) or pursued other activities (7%; 9%) as completing an internship or performing military service.

Procedure

After a telephone screening checking for the previously mentioned eligibility criteria, adolescent couples were invited to the university, where they attended a laboratory session with an average duration of three hours. Prior to the investigation, adolescents' assent or parents' consent for underage participants was obtained. Couples were accompanied by trained staff during the entire laboratory session. Participants completed multiple procedures

including questionnaires, interaction tasks and interviews. Each couple got an allowance of 100 Swiss Francs (approximately 105 US Dollars) for their participation.

Measures

Relationship Satisfaction. The German form of the *Relationship Assessment Scale* (RAS; Hendrick, 1988; Sander & Böcker, 1993) is a 7-item instrument with a 5-point Likert scale (ranging from 1 = *not at all* to 5 = *completely true*). This economic scale allows computing an overall relationship satisfaction score by averaging the items for each participant. Higher scores indicated higher relationship satisfaction. Cronbach's Alpha of the total score was $\alpha_{fa} = .70$ for female adolescents and $\alpha_{ma} = .73$ for male adolescents.

Physical and Mental Well-Being. The physical and mental well-being questionnaire (PKB; Bodenmann-Kehl, 1999) assesses physical and mental well-being with three items each on a 6-point Likert scale (ranging from 1 = *never* to 6 = *always*). Physical- and mental well-being were conceptualized as subjective perceived health (e.g. "*Do you feel physically healthy?*", "*Are you suffering from mental tension?*"). Internal consistency of the two scales was good (physical well-being: $\alpha_{fa} = .81$, $\alpha_{ma} = .79$; mental well-being: $\alpha_{fa} = .84$, $\alpha_{ma} = .80$). Higher scores indicated a higher physical or mental well-being. The questionnaire has been proven in several studies and has been used regularly and with success as an economic measure of well-being in the research group around Bodenmann.

Dyadic Coping. The 37-item Dyadic Coping Inventory (DCI; Bodenmann, 2008) assesses (1) each partner's own dyadic coping (e.g., "*When my partner makes me know that she/he is stressed, I help her/him to see the situation in a different light*"), (2) each partner's perception of the dyadic coping of the partner (e.g., "*When I feel stressed, my partner helps me to see the stressful situation in a different light*") and (3) each partner's appraisal of how they cope together as a couple (e.g., "*When we both feel stressed, we try to cope with the problem together and search for ascertained solutions*") on a 5-point Likert scale (1 = *never*,

5 = *very often*). For this study, we averaged the items of the five dyadic coping subscales to gain two systemic dyadic coping scores: *Positive dyadic coping* included (a) the supportive dyadic coping by oneself, (b) the supportive dyadic coping of the partner and (c) the common dyadic coping ($\alpha_{fa} = .84$; $\alpha_{ma} = .87$). *Negative dyadic coping* was composed of (a) the negative dyadic coping by oneself and (b) the negative dyadic coping from the partner ($\alpha_{fa} = .76$; $\alpha_{ma} = .76$).

Individual Coping. Individual coping was measured with the German form of the BriefCOPE (Carver, 1997; Knoll, Rieckmann, & Schwarzer, 2005), an abbreviated version of the COPE inventory (Carver, Schreier, & Weintraub, 1989). For the present study, we added the instruction to exclude the partner as social support provider from items assessing emotional and instrumental social support to avoid confounding with dyadic coping. Furthermore, due to the theoretically unclear affiliation of the self-distraction subscale, which can be a more functional coping strategy when faced with an uncontrollable situation or a more passive coping strategy when used in controllable situations, this scale was excluded. The religion subscale was excluded due to its low exploratory power in earlier studies. The items were theoretically and factor-analytically divided into two dimensions: functional individual coping strategies (active coping, emotional social support, instrumental social support, planning, positive reframing, acceptance, humor) and dysfunctional individual coping strategies (denial, venting, substance use, behavioral disengagement, self-blame), and taken together into one entire scale. Higher scores indicated the use of more functional and less dysfunctional individual coping strategies in stressful situations. Ratings were made on a 4-point Likert scale (1 = *never*, 4 = *a lot*) and implied how often adolescents cope in a previous way when they are generally stressed. Taking into consideration the diverse coping strategies, Cronbach's Alphas of the entire scales were acceptable ($\alpha_{fa} = .66$; $\alpha_{ma} = .67$).

Data Analysis

To test our hypotheses we performed Actor-Partner Interdependence Models (APIM; Cook & Kenny, 2005; Kenny et al., 2006) as they are widely used for the analysis of dyadic data. APIM's allow to test associations of one partner's independent variable on its own dependent variable (actor effects; e.g., prediction of Partner A's relationship satisfaction by Partner A's positive dyadic coping), as well as the association of one partner's independent variable on the dependent variable of the other partner (partner effects; e.g., prediction of Partner B's relationship satisfaction by Partner A's positive dyadic coping) in one model. Our proposed model is displayed in Figure 1. According to the exploratory approach, we test completely saturated APIM's to estimate all possible paths within as well as between partners.

As mentioned above, female and male adolescents differed significantly in age, which can influence the model. Additionally, female and male adolescents ages correlated high ($r > .70$), which can yield a multicollinearity problem when including both variables in one model. Moreover, variation in relationship duration between couples could influence the model as well. Due to these considerations and to keep the model parsimonious, we controlled for actor effects of age and for relationship duration by estimating separate multiple linear regressions with age and relationship duration as predictors for each of the variables in the model. Unstandardized residuals of these multiple linear regressions were applied for further analyses. All statistical analyses were performed with the structural equation modeling program Mplus (Muthén & Muthén, 1998 - 2012) and maximum likelihood bootstrap procedure (500 samples).

Results

Preliminary Analysis

Descriptives and correlations of all study variables are presented in Table 6.1. We found gender differences in the interested variables as follows: Female adolescents reported higher relationship satisfaction (RS) ($t(129) = 2.83, p < .01$) and significantly more positive dyadic coping (PDC) ($t(129) = 2.66, p < .01$) in their relationships than their partners did.

Furthermore, compared with male adolescents, female adolescents' self-reported physical (PWB) ($t(129) = 2.92, p < .01$) and mental well-being (MWB) ($t(129) = 4.69, p < .001$) was remarkable lower, and they reported using fewer functional individual coping (IC) when stressed ($t(129) = 2.88, p < .01$). There wasn't any difference in reported negative dyadic coping (NDC) between adolescent females and males. Correlations indicate that there was little multicollinearity among independent variables. Interestingly, female adolescents' correlations between PDC and their own individual coping ($r = .09, ns$), as well as associations between their positive dyadic coping and their physical ($r = .01, ns$) and mental well-being ($r = .16, p < .10$) were weaker than the same correlations in male adolescents (IC: $r = .23, p < .01$; PWB: $r = .40, p < .001$; MWB: $r = .35, p < .001$). A similar pattern was observed for the correlations between negative dyadic coping and physical well-being ($r = -.14, ns$), and negative dyadic coping and mental well-being ($r = -.19, p < .05$) in female partners compared with male partners (PWB: $r = -.34, p < .001$; MWB: $r = -.23, p < .01$). These results might suggest that dyadic coping is more important for males' than females' physical and mental well-being.

Relationship Satisfaction

Table 6.2 shows that both adolescent partners' relationship satisfaction is best predicted by their own estimation of positive ($B_{fa} = .39, p < .001$; $B_{ma} = .33, p < .001$) and negative

dyadic coping ($B_{fa} = -.23, p < .01$; $B_{ma} = -.28, p < .01$). In other words and as hypothesized (H1), the amount of positive and negative dyadic coping adolescent partners perceive in their relationship is highly important for their own relationship satisfaction. Furthermore, positive dyadic coping of the partner (partners' view of positive dyadic coping) seems also to have an effect on own relationship satisfaction for both adolescent females ($B = .12, p < .10$) and males ($B = .22, p < .01$) in our sample. Interestingly, females' individual coping was positively associated with males' relationship satisfaction ($B = .19, p < .05$), indicating that higher levels of functional individual coping in female adolescents is associated with higher relationship satisfaction in their partners. Overall, 39% of variance in adolescent females' and 42% in adolescent males' relationship satisfaction was explained by our model.

We tested our second hypothesis (H2) that dyadic coping compared with individual coping is a stronger predictor for adolescent partners' relationship satisfaction by restricting actor effects within one person to be equal (e.g., the actor effect of female adolescents' individual coping on females' relationship satisfaction was set to be equal with females' positive dyadic coping on females' relationship satisfaction). In detail and referring to Figure 1, the following actor effects were tested to be in separate models each: (1) $a_1 = a_2$; (2) $a_4 = a_5$; (3) $a_1 = a_3$; (4) $a_4 = a_6$. Parameters were supposed to be statistically different if the chi-square difference test between the default and the respective restricted model was significant. As expected, chi-square difference tests suggested stronger associations of positive and negative dyadic coping with relationship satisfaction than individual coping within adolescent females and males (i.e., individual coping compared with positive dyadic coping:

$\chi^2_{fa}(1) = 10.038, p < .01$; $\chi^2_{ma}(1) = 5.806, p < .05$; Negative dyadic coping compared with individual coping: $\chi^2_{fa}(1) = 7.864, p < .01$; $\chi^2_{ma}(1) = 10.047, p < .01$).

Physical and Mental Well-being

Models revealed different patterns in the prediction of physical and mental well-being for female and male partners: For female adolescents, only their individual coping with stress was strongly associated with their physical ($B = .79, p < .001$) and mental well-being ($B = 1.10, p < .001$). For male adolescents on the other hand, positive dyadic coping was an even better predictor for their physical ($B = .59, p < .01$), and a significant predictor for mental well-being ($B = .43, p < .01$) as their own individual coping ($B_{PWB} = .45, p < .05$; $B_{MWB} = .43, p < .001$). Furthermore, negative dyadic coping was negatively associated with physical well-being in male adolescents ($B = -.43, p < .05$). These results indicate that there might be an association between adolescent males' perception of dyadic coping in their relationships and their general physical and mental well-being whereas our result show no support for this assumption in adolescent females. Therefore hypothesis (H3) was partially supported. In adolescent males, individual, positive and negative dyadic coping explained 25% of variance in physical and 31% of the variance in mental well-being, which was remarkable higher as in females ($R^2_{PWB} = 15\%$, $R^2_{MWB} = 20\%$).

Gender differences

Due to the observed differences between female and male adolescents, we tested post-hoc gender differences in the actor and partner effects by restricting paths to be equal across gender for each type of variable and path within one model each (e.g., the actor effect of female adolescents' individual coping on females' relationship satisfaction was set to be equal with the actor effect of male adolescents' individual coping on males' relationship satisfaction). In detail and referring to Figure 1, we tested the following effects to be equal: (1) $a_1 = a_4$; (2) $a_2 = a_5$; (3) $a_3 = a_6$; (4) $p_1 = p_4$; (5) $p_2 = p_5$; (6) $p_3 = p_6$. As before, we supposed differences in the respective paths when chi-square difference tests indicated that data fit the

restricted model significantly worse. Only completely restricted models (including all equal paths found) are reported in the next section.

We found no gender differences in actor and partner effects in the prediction of relationship satisfaction of adolescent females and males by individual and dyadic coping. Following the criteria of Hu and Bentler (1999), data fitted a model with completely restricted actor and partner effects well ($\chi^2 = 2.526$, $df = 6$, ns ; RMSEA = .000 with 90% CI .000 – .060; SRMR = .016; CFI = 1.000). In the completely restricted model, actor-effects of positive dyadic coping ($B = .38$, $p < .001$) and negative dyadic coping ($B = -.23$, $p < .001$) and partner effects of positive dyadic coping ($B = .18$, $p < .001$) as well as partner effects of individual coping ($B = .11$, $p < .05$) remained significant associated with relationship satisfaction. Summing up, more positive dyadic coping, fewer negative dyadic coping appraised by oneself, more positive dyadic coping appraised by the partner and more functional individual coping skills of the partner predicted higher relationship satisfaction in adolescent females and males.

Male adolescents' actor effect of positive dyadic coping on physical well-being was statistically higher than female adolescents' actor effect ($\chi^2(1) = 7.109$; $p < .01$). All other effects in this model did not statistically differ between genders. In the respective restricted model ($\chi^2 = 3.981$, $df = 5$, ns ; RMSEA = .000 with 90% CI .000 – .108; SRMR = .023; CFI = 1.000), we found significant associations between individual coping and physical well-being ($B = .59$, $p < .001$), as well as between negative dyadic coping and physical well-being ($B = -.34$, $p < .05$) for both, adolescent females and males.

Restricting actor and partner-effects being equal between female and male partners in the mental well-being model revealed no statistical gender differences. The completely restricted model fit the data well ($\chi^2 = 3.103$, $df = 6$, ns ; RMSEA = .000 with 90% CI .000 – .074; SRMR = .021; CFI = 1.000). In this restricted model, actor-effects of

individual ($B = 1.01, p < .001$) and positive dyadic coping ($B = .38, p < .01$) were statistically predictive for females' and males' mental well-being.

Discussion

The main aim of this study was to gain further insights in the association of individual and dyadic coping with relationship satisfaction and physical and mental well-being in adolescent couples and the interdependence between adolescent partners. Recent findings suggest that adequate coping with stressful situations and especially social support from close ones is associated with normative development and psychological adjustment in adolescence (Compas et al., 2001). Simultaneously, initiating and maintaining romantic relationships are key developmental tasks in adolescence (Furman & Shaffer, 2003). Research on intimate relationships in adulthood proposed a mutual influence of coping between partners and revealed dyadic coping as highly important for partners' relationship satisfaction and well-being (Bodenmann, 1995; Bodenmann et al., 2011). Accordingly, it is of high interest to investigate the importance of dyadic coping in adolescent couples as well.

As expected, positive and negative dyadic coping were significant statistical predictors for relationship satisfaction in adolescent couples, as it has previously been found in adult couples (e.g., Bodenmann et al., 2011; Herzberg, 2013). More positive dyadic coping and less negative dyadic coping perceived by adolescent partners in their relationships were associated with higher relationship satisfaction for female as well as for male adolescents, even when taking into account individual coping competencies. This result may indicate that dyadic coping is already important in adolescents' intimate relationships, as to perceive the relationship as supportive and the partner as available in times of stress seems to contribute to adolescents' satisfaction with their romantic relationship. Additionally we found an interaction between partners, that higher perceived positive dyadic coping of one partner was associated

with relationship satisfaction of the other partner, which supports the assumption of a mutual interdependence between partners. Explained variance in relationship satisfaction in our model was comparable with previous studies (Bodenmann et al., 2011; Herzberg, 2013).

Interestingly, females' individual coping was positively associated with males' relationship satisfaction, indicating that adolescent males with partners showing more functional individual coping competencies are more satisfied with their relationships. However, when testing gender differences, we found that this association may also be indicated for females, as we found no gender differences. This partner effect is difficult to introduce in previous research as most studies missed to test partner effects of individual coping on relationship satisfaction even in adult couples (e.g., Herzberg, 2013; Papp & Witt, 2010). It might be possible that individuals whose partners cope with stress more functionally are more satisfied with their relationships as they use dyadic resources only when it is really necessary.

Furthermore, we assumed that dyadic coping contributes beside individual coping variance in explaining adolescent partners' physical and mental well-being. As expected, positive and negative dyadic coping were found to be statistically predictive for adolescent males' physical and mental well-being. Contrary to our hypothesis this was initially not the case for female adolescents. But when testing gender differences, we found that adolescent females' physical and mental well-being was associated with their individual coping and their perceived negative dyadic coping, indicating that adolescent females with higher levels of functional individual coping and fewer perceived negative dyadic coping in their relationships reported better physical and mental well-being.

Unlike in adolescent females, males' physical well-being was strongly associated with their subjective perception of positive dyadic coping. This finding is somewhat in line with Simon and Barrett (2010) who found support and strains in a sample of non-married couples

to be more closely associated with young men's than with women's emotional well-being.

However, we did not find a similar gender difference in adolescents' mental well-being.

Simon and Barrett (2010) concluded that late adolescent males might be more reactive to the quality of relationships than female adolescents. Another explanation for this finding might be that young women also seek support from other support providers (e.g., from parents or peers) as only from partner when they experience stress, whereas for males intimate relationships are the most important source of support.

Limitations and Future Research Directions

The following limitations of this study should be considered: First, the study design was cross-sectional and therefore no causal relations could be explored. For example, our findings might suggest either that adolescent partners with fewer functional individual coping skills and more negative dyadic coping in their relationships have poorer physical and mental well-being, or that reduced physical and mental well-being leads to poorer coping skills, both on an individual and dyadic level. Both of which require further investigation in empirical studies with longitudinal approaches. Second, our study concerns on self-reported measures. The use of only one method of measurement may contribute to significant associations between individual- and dyadic coping, relationship satisfaction, and the well-being subscales. Third, we ascertained coping behavior in a general way – specifically, how adolescents cope generally with stressful situations in their daily life. This general approach can lead to distortion, as it might be that dyadic coping is especially important when faced with specific stressors. Finally, it is generally possible that individuals with better well-being are more likely to maintain romantic relationships and accordingly are the one with better well-being in general.

Nevertheless, the previous study enables insights into late adolescent couples and the interdependence between adolescent partners. In view of the development phase and the fact

that most of the partners did not cohabit, it would be interesting to include other social support providers, as for example parents or peers, in future investigations of late adolescents' romantic relationships. However, our results may contribute to a better understanding of adolescents' romantic relationships in general and the role of romantic partners in this stage of development in particular.

Conclusion

Romantic relationships in late adolescence are of high interest, as they are a key developmental task in adolescence. A systemic view of these relationships is required to gain a better understanding of the mutual processes between partners in these relationships. Moreover, our findings are interesting for practice as well, as they highlight the importance of dyadic coping and a systemic view of romantic relationships already in late adolescence and emerging adulthood. Knowledge and training of these relationship-related skills may help adolescents to make use of these resources accurately in current and future relationships and consequently assist them in their development.

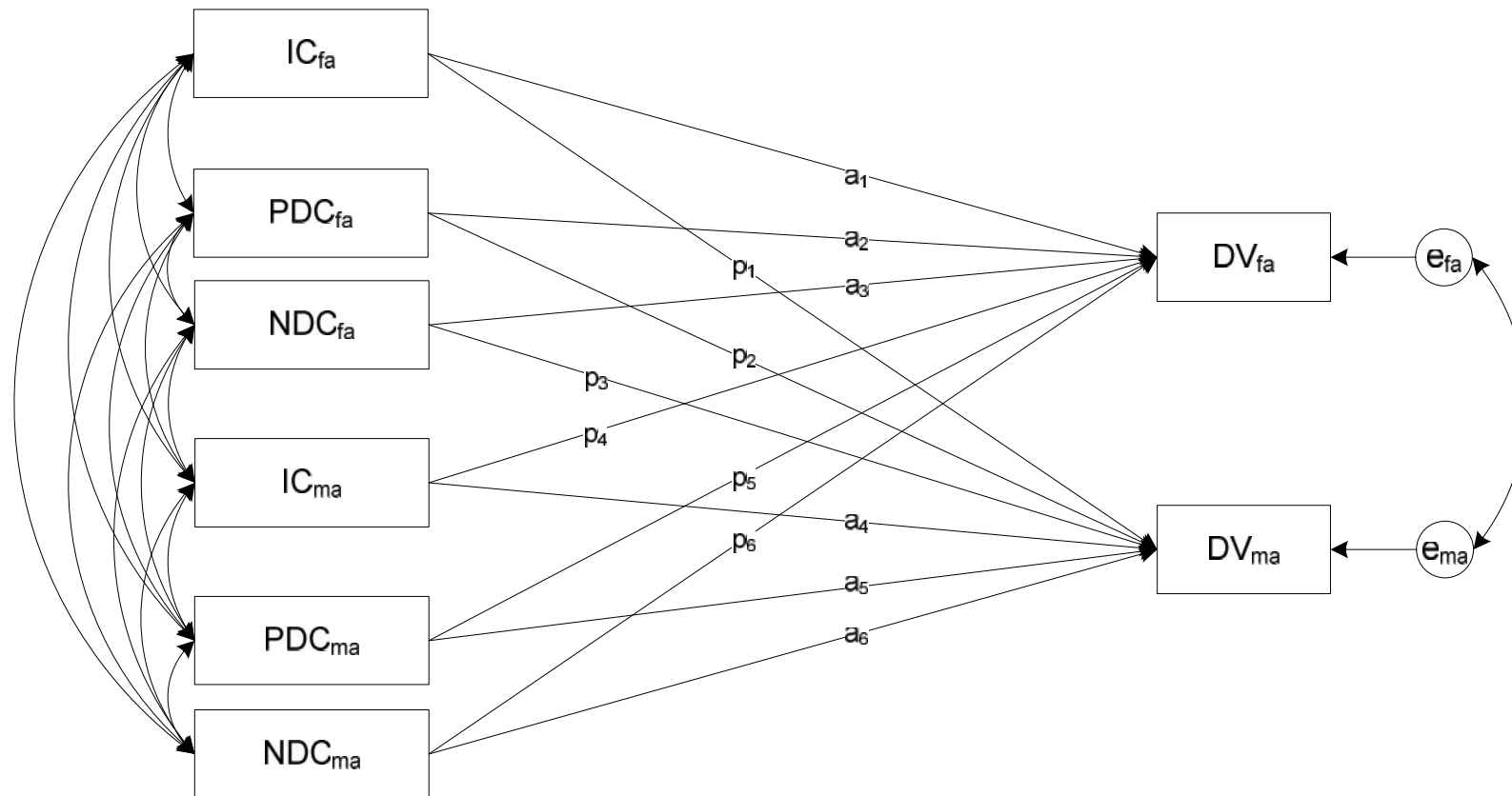


Figure 6-1. Actor-Partner Interdependence Model (APIM) of female and male adolescents' dependent variables (DV) on their individual coping (IC), positive dyadic coping (PDC) and negative dyadic coping (NDC). ma = male adolescent; fa = female adolescent; a = actor effect; p = partner effect; e = error terms.

Table 6.1

Descriptives and correlations

Variables	Descriptives					Bivariate Correlations					
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>t</i>	1	2	3	4	5	6
1 Relationship Satisfaction	4.46	0.39	4.36	0.43	2.83**	.54***	.15 [†]	.28**	.19*	.53***	-.40***
2 Physical well-being (PWB)	4.72	0.86	5.01	0.86	2.92**	.29**	.10	.41***	.34***	.01	-.14
3 Mental well-being (MWB)	4.39	1.00	4.89	0.90	4.69***	.41***	.42***	.19*	.42***	.16 [†]	-.19*
4 Individual coping (IC)	2.76	0.36	2.89	0.38	2.88**	.23**	.29**	.48***	.10	.09	-.20*
5 Positive dyadic coping (PDC)	4.23	0.41	4.11	0.44	2.66**	.53***	.40***	.35***	.23**	.25**	-.33***
6 Negative dyadic coping (NDC)	1.39	0.35	1.45	0.40	1.56	-.41***	-.34***	-.23**	-.22*	-.34***	.12

Note. Bivariate correlations for female adolescents' scores are displayed above the diagonal; those for male adolescents are displayed below the diagonal. Correlations between female and male adolescents could be found on the diagonal (printed in bold).

[†] $p < .10$; * $p < .05$; ** $p < .01$; *** $p < .001$.

Table 6.2

APIM for prediction of relationship satisfaction (RS), physical well-being (PWB) and mental well-being (MWB) by individual and dyadic coping

	RS			PWB			MWB		
	<i>B</i>	<i>SE B</i>		<i>B</i>	<i>SE B</i>		<i>B</i>	<i>SE B</i>	
<i>Female adolescent's dependent variable</i>									
Individual Coping fa (a)	.06	.08	.06	.79	.22	.33***	1.10	.22	.40***
Positive DC fa (a)	.39	.08	.41***	-.11	.18	-.05	.28	.21	.11
Negative DC fa (a)	-.23	.09	-.21**	-.15	.23	-.06	-.21	.25	-.07
Individual Coping ma (p)	.07	.08	.07	.32	.22	.14	-.05	.24	-.02
Positive DC ma (p)	.12	.07	.14 [†]	-.09	.20	-.04	-.17	.20	-.07
Negative DC ma (p)	-.09	.07	-.09	.01	.19	.00	-.21	.19	-.09
<i>R</i> ²	39%			15%			20%		
<i>Male adolescent's dependent variable</i>									
Individual Coping fa (p)	.19	.08	.16*	.03	.18	.01	.33	.20	.13
Positive DC fa (p)	.22	.08	.22**	-.04	.16	-.02	.00	.16	.00
Negative DC fa (p)	-.04	.07	-.03	.16	.21	.07	-.09	.25	-.03
Individual Coping ma (a)	.05	.09	.04	.45	.22	.20*	.94	.25	.40***
Positive DC ma (a)	.33	.08	.34***	.59	.18	.30**	.43	.18	.21**
Negative DC ma (a)	-.28	.09	-.27**	-.43	.21	-.20*	-.12	.19	-.05
<i>R</i> ²	42%			25%			31%		

Note. a = actor effect; p = partner effect; fa = female adolescents; ma = male adolescents; DC = dyadic coping. All models are controlled for

relationship duration and both partners' age.

[†] $p < .10$; * $p < .05$; ** $p < .01$; *** $p < .001$

7. Study III: Can Coping Predict Relationship Satisfaction and Stability in Adolescent Couples After One Year?³

Abstract

Dyadic coping is a well examined predictor of relationship satisfaction and stability in adult couples. Furthermore, in recent cross-sectional studies, individual and dyadic coping were associated with higher relationship satisfaction in late adolescent couples. Extending our knowledge of the long-term importance of coping in adolescents' romantic relationships, the main aim of the present study was to examine the predictive power of individual and dyadic coping for relationship satisfaction ($n = 54$ females; $n = 55$ males) and relationship stability ($N = 99$ couples) in adolescent couples (aged between 16 and 23 years) over one year. Taking into consideration a systemic perspective, both partners' scores were introduced in multiple linear and logistic regression analyses, while controlling for initial relationship satisfaction. In our sample, adolescent partners' subjectively perceived dyadic coping predicted neither their relationship satisfaction nor relationship stability after one year. This result suggests a sequential development of romantic relationships in adolescence and is discussed within a broader theoretical framework.

Introduction

In the context of intimate relationships in adulthood, convincing evidence exists that individual and dyadic coping with stressful situations are highly important skills for relationship satisfaction, relationship stability and both partners' well-being (e.g., Bodenmann

³ Brief-report by Christina J. Breitenstein, Anne Milek, Fritjof W. Nussbeck and Guy Bodenmann. This study has been funded by the Swiss National Science Foundation (SNSF; No: 100014_129699). This brief-report will be submitted to the Journal of Youth and Adolescence.

et al., 2011; Revenson & Lepore, 2012). For example, empirical studies show that partners who cope with stress originating outside the relationship functionally, as individuals and also work well together as a team by supporting one another, experience higher levels of relationship satisfaction and lower rates of divorce (e.g., Bodenmann & Cina, 2005; Bodenmann et al., 2011, 2006).

In late adolescence, nearly no scientifically founded knowledge on the role of individual and dyadic coping within romantic relationships exists, even as developing and maintaining intimate relationships are key developmental tasks in adolescence. We currently know little about if and how these coping skills contribute to relationship functioning and relationship stability at this stage of close relationships. Consequently, this brief-report used a longitudinal design to determine the impact of individual and dyadic coping on relationship satisfaction and relationship stability in late adolescent couples (aged 16 to 22 years) over one year.

The Impact of Individual and Dyadic Coping on Adult Couples

Stress has been identified as a consistent predictor of low quality and instability of close relationships in adulthood (e.g., Randall & Bodenmann, 2009; Story & Bradbury, 2004). Especially daily hassles emerging outside the relationship (*extra-dyadic stress*) which accumulate and become chronic (e.g., chronic stress at work) seem to influence couple relationships in a disadvantageous way (Falconier et al., 2013; Harper et al., 2000; Story & Repetti, 2006). On the other hand, empirical work consistently suggests that adequate coping skills can buffer this harmful influence and contribute to higher relationship satisfaction and stability (e.g., Bodenmann & Cina, 2005; Herzberg, 2013; Merz et al., 2014; Papp & Witt, 2010).

Using functional individual coping strategies (e.g., active coping, positive reframing) in stressful situations has been found to be related to higher levels of relationship satisfaction in

intimate relationships (Herzberg, 2013; Papp & Witt, 2010). Consistently, Bodenmann and Cina (2005) found that couples displaying higher levels of dysfunctional individual coping (avoidance, self-blaming and passivity) were more likely to be in distressed relationships or divorced 5 years later. In short, functional individual coping skills are positively associated with relationship satisfaction and stability in adult couples.

Taking into account a systemic interdependence of partners in close relationships, stress is not a purely individual phenomenon. According to Bodenmann's *Systemic-Transactional Stress Model* (Bodenmann, 1997) extra-dyadic stress can spillover from one partner to the other when (a) daily hassles accumulate, when (b) the stress is severe or long-lasting, and/or (c) when the amount of stress exceeds individuals' coping resources or individual coping styles are dysfunctional. In these cases or when the stress concerns both partners mutually, partners engage in a reciprocal process of maintaining or restoring the homeostasis within the partners as individuals and within the system of the relationship (Bodenmann, 1995). This reciprocal process of common coping activities on both partners' and relationships' behalf is referred to as dyadic coping (Bodenmann, 1997).

Dyadic coping is a well-established and meaningful concept in research on intimate relationships. Compared with individual coping, dyadic coping has been found to be more strongly associated with relationship satisfaction (Bodenmann et al., 2011, 2006; Herzberg, 2013). Furthermore, in the 5-year longitudinal study by Bodenmann and Cina (2005) higher levels of dyadic coping have been found in stable-satisfied couples compared with stable-depressed and divorced couples, whereas divorced couples reported even less dyadic coping than stable-distressed couples. Summing up, individual and dyadic coping skills have been shown to be highly relevant for relationship satisfaction and relationship stability in adulthood.

The Impact of Individual and Dyadic Coping on Adolescents' Romantic Relationships

Adolescence is a time of storm and stress, intense emotions, and manifold demands and challenges. Comparable with adults, chronic daily hassles have been found to be stronger predictors for adolescents' mental and physical well-being than major life events (e.g., Compas et al., 1985, 1993). For example, adolescents reporting higher levels of stress displayed more psychopathological symptoms (for an overview see Compas et al., 1993). Consequently, functional coping skills which can protect individuals against the harmful influence of stress are of high relevance in adolescence.

The association between individual coping competencies and relationship satisfaction and relationship status in adolescence has only rarely been examined to date. In general, using more functional coping strategies (e.g., active coping, problem solving, analyzing the situation, seeking support) when faced with stress have been associated with normative development and psychological adjustment in adolescence (for an overview see Compas et al., 2001). Furthermore, Nieder and Seiffge-Krenke (2001) associated the observed increase of individual coping competences between the age of 14 and 16 with an increase in the quality of romantic relationships at the ages of 15 and 16.

As romantic relationships in adolescence increase in intimacy and affection with age (Nieder & Seiffge-Krenke, 2001), it can be assumed that dyadic coping becomes increasingly important for late adolescents' relationship satisfaction and stability. This view is supported by Connolly and Johnson (1996) who found that the relevance of the intimate partner as support provider increased simultaneously with the duration of the intimate relationships and with age. Consistently, Bouchey (2007) found positive partner characteristics (e.g., feeling understood or accepted by the partner) to be the most important aspect in romantic relationships for late adolescence. Furthermore, in the few cross-sectional studies examining

dyadic coping in adolescent couples, strong associations with relationship satisfaction have been found (Cramer, 2006; see also Chapter 5 and 6)

Surprisingly, only a small number of studies investigated predictors of relationship stability in late adolescent couples: For example, Duemmler and Kobak (2001) reported higher attachment security toward the partner and higher dyadic commitment in stable couples after a year compared with couples who separated during this year. Even though romantic relationships in adolescence are normatively less stable compared with intimate relationships in adulthood, research on adult relationships suggests that couples with higher dyadic coping are more stable compared with those with fewer dyadic coping skills.

Current Study

To our knowledge, this study is among the first investigating the prediction of relationship satisfaction and stability in adolescent couples by individual and dyadic coping skills of both partners. Based on the previously presented findings, it is hypothesized that higher levels of (functional) individual coping and dyadic coping predict relationship satisfaction in stable adolescent couples one year later (H1). Additionally, individual and dyadic coping skills are expected to predict relationship stability within one year in adolescent couples beyond the effect of relationship satisfaction (H2).

Method

Participants

The initial sample consisted of 130 adolescent couples. At the follow-up one year later a total of 99 couples provided information about their relationship status (i.e., if their relationship was stable / separated). At this time, 69 couples were still together whereas 30 couples had separated. For 54 female and 55 male adolescents additional information on

relationship satisfaction was available. Forty females and males of these latter participants were couples. Accordingly, 14 adolescent females and 15 adolescent males provided information on relationship satisfaction while their partners did not participate in the follow-up. Thus, the sample of further analyses consisted of $N = 99$ couples regarding relationship status, and $n = 54$ female and $n = 55$ male partners regarding relationship satisfaction one year after the first investigation. To preclude a selection bias, we compared participating and not participating adolescent partners using mean differences and chi-square tests. Neither females nor males differed significantly in demographic or main study variables.

At the first assessment the mean age was 18.76 years ($SD = 1.55$; $Range = 16.17 - 22.83$) for female adolescents and 19.43 ($SD = 1.57$; $Range = 16.25 - 22.83$) years for male adolescents. The average relationship duration was 2.06 years ($SD = 1.01$ years). Regarding nationality, 95% of females and 97% of males were Swiss whereas the rest originated from other European countries. At the beginning of the study, most adolescents lived with their parents (87%; 85%), a few shared an apartment with peers (8%; 10%) or lived alone (1%; 1%). Only 4% of the couples cohabited. Most adolescents reported to attend high school (43%; 32%), university (28%; 24%) or an apprenticeship (20%; 29%). Other participants were employed (1%; 8%) or pursued other activities (7%; 9%) as for example completing an internship. Sixty-nine percent of females and 67% of males grew up in two-parent households whereas 30% of females' and 31% of males' parents were separated or divorced.

Procedure

Adolescent couples were recruited via newspapers, social media, recreational facilities and schools. Eligibility requirements to participate were (a) having a stable relationship for at least one year, (b) both partners had to be between 16 and 22 years of age, and (c) could read and speak German. Data were collected at two time points over a course of one year. At the

first time of measurement, above mentioned eligibility criteria were checked in a telephone screening. Adolescents' assent and parents' consent for underage participants (< 18 years) was obtained prior to the investigation. Following the screening, adolescent couples attended an approximately three hours lasting laboratory session at the university. During this laboratory session, couples were accompanied by trained staff while they completed questionnaires, interaction tasks and interviews. Each couple received an incentive of 100 SFR (approximately 105 USD) for their participation. One year after their first participation, all partners were invited individually to participate in a reduced follow-up questionnaire online.

Measures

Relationship Satisfaction. Relationship satisfaction was measured with the German version of the *Relationship Assessment Scale* (RAS; Hendrick, 1988) by Sander and Böcker (1993). Seven items were rated on a five-point agreement scale, ranging from 1 (= *not at all*) to 5 (= *completely true*). Scores were computed by averaging the items. Higher scores represented higher relationship satisfaction. Internal consistency was acceptable ($\alpha = .70$ for female adolescents, $\alpha = .73$ for male adolescents). Relationship satisfaction was measured twice: Once at the initial assessment (t0), and if partners still were in a stable relationship once at the follow-up assessment one year later (t1).

Individual Coping. Individual coping was measured with an short version of the widely used COPE inventory (Carver et al., 1989), the German version of the BriefCOPE (Carver, 1997; Knoll et al., 2005). Ratings were made on a 4-point Likert scale (1 = *never*, 4 = *a lot*) and assess how adolescents cope when they experience stress. The items were theoretically and factor-analytically divided into two dimensions: functional individual coping strategies (active coping, emotional social support, instrumental social support, planning, positive reframing, acceptance, humor) and dysfunctional individual coping strategies (denial, venting,

substance use, behavioral disengagement, self-blame. To avoid confounding social support with dyadic coping, we added the instruction to exclude the partner as social support provider for items assessing instrumental and emotional social support. Due to the theoretically unclear affiliation of the self-distraction subscale of the original instrument (which can be a more functional coping strategy when faced with an uncontrollable situation or a more passive coping strategy when used in controllable situations) this subscale was excluded. The religion subscale was excluded due to its low exploratory power in earlier studies. All other subscales were recoded when necessary and averaged to one indicator. Higher scores indicated the use of more functional and less dysfunctional individual coping strategies in stressful situations. Taking into consideration the diverse coping strategies, Cronbach's Alphas of the entire scales were acceptable ($\alpha_{fa} = .66$; $\alpha_{ma} = .67$).

Dyadic Coping. Dyadic coping was measured with the adapted *Dyadic Coping Inventory* (DCI; Bodenmann, 2008). Prior to this study, the original form of the DCI has been presented to two school classes with a mean age of 16 years. Students were instructed to mark unknown words and sentences difficult to understand. On this basis the DCI was linguistically slightly adapted to ensure adolescents' full comprehension. For this study, we used the common dyadic coping subscale of the DCI (4 items), which assesses each partner's appraisal of how they cope together as a couple (e.g., "*When we both feel stressed, we together search for tangible solutions of the problem*") on a 5-point Likert scale (1 = *never*, 5 = *very often*). Higher scores indicated higher perceived common dyadic coping in the couple. The scale was low to moderately reliable with $\alpha = .66$ for female adolescents and $\alpha = .75$ for male adolescents, respectively.

Data Analysis

Multiple linear regression analyses were used to predict adolescents' relationship satisfaction at one year after the first assessment. These analyses were conducted separately for those females and males who participated at the follow-up and were still in a stable relationship. Taking into consideration a systemic perspective, partners' scores (t0) were introduced into the analyses. A logistic regression was used to predict relationship stability after one year. Stable relationships were coded with 1, separated relationships were coded with 0. Relationship duration was introduced as control variable in all models.

Results

Prediction of Relationship Satisfaction in Adolescent Couples

Descriptive statistics and inter-correlations of the following variables are presented in Table 7.1 for adolescent partners who were still in stable relationships after one year: Individual coping, dyadic coping, and relationship satisfaction at the first assessment (t0) each for oneself and the partner ($n = 54$ females, $n = 55$ males), and relationship satisfaction at the follow-up (t1). Own individual coping ($r = .35$; $p < .05$), own dyadic coping ($r = .32$; $p < .05$) and dyadic coping reported by their partners at t0 ($r = .37$; $p < .01$) were correlated with females' relationship satisfaction at t1. For males, own individual coping ($r = .24$; $p < .10$) and partners' individual coping ($r = .25$; $p < .10$) were marginally related to their relationship satisfaction at t1. In addition, males' own dyadic coping was associated with their relationship satisfaction one year later ($r = .27$; $p < .05$).

First, separate regression analyses were conducted for both, females and males. Regressions on relationship satisfaction at the follow-up (RS_{t1}) were conducted entering all predictor variables simultaneously into the analyses. Results are displayed in Table 7.2. Females' own relationship satisfaction ($\beta = .60$, $p < .01$) and individual coping ($\beta = .35$,

$p < .10$) at t_0 were statistically significant predictors for RS_{t1} , indicating high stability of relationship satisfaction over time. The total amount of variance explained in females' RS_{t1} was 46%. For males, only their own relationship satisfaction ($\beta = .45, p < .05$) at t_0 was significantly associated with their RS_{t1} . The total amount of variance explained in males' RS_{t1} was 23%. Furthermore, we tested for moderating effects between individual and dyadic coping skills for both genders. All the interaction terms were non-significant, thus, were not included into the final model.

Relationship Stability in Adolescent Couples

Descriptives and bivariate correlations of the variables of interest at t_0 for predicting relationship stability in adolescent couples ($N = 99$) are displayed in Table 7.3. Highest correlations were observed between dyadic coping and relationship satisfaction in females ($r = .44; p < .001$) and males ($r = .36; p < .001$), and in relationship satisfaction between adolescent partners ($r = .56; p < .001$). Tests of mean differences between partners (t -tests for dependent samples) revealed lower scores in individual coping ($t(98) = 2.83; p < .01$), and higher scores in dyadic coping ($t(98) = 2.33; p < .05$) and relationship satisfaction ($t(98) = 2.28; p < .05$) for females compared with males. Mean differences in the same variables between individuals whose relationships remained stable and whose relationship ended were also examined using t -tests for independent samples. Females in stable relationships reported slightly higher levels of relationship satisfaction at the first assessment than female adolescents in separated relationships ($t(43.14) = 1.72; p < .10$). All other variables did not differ significantly between adolescents in stable versus separated relationships after one year.

Second hypothesis was tested using a logistic regression to predict relationship stability in adolescent couples one year after the first assessment (see Table 7.4). Assumptions of linearity of the logit and multicollinearity of the independent variables were tested prior to

conduction of the logistic regression analysis. The model including only the constant would correctly classify 69.7% of couples in our sample as stable/separated. Including control variable and both partners individual coping, dyadic coping and relationship satisfaction into the logistic regression did not make a significant contribution to the predictive power of relationship stability in adolescent couples, as is indicated by the models' non-significant chi-square value ($\chi^2 = 9.64$, $df = 7$). The model predicted 92.8% of couples correctly as stable, but only 17% of couples correctly as separated. Taken together, the amount of correctly classified couples was 69.7% and accordingly the same as if only the constant had been included. Not even the directions of the effects of the variables can be interpreted as the 95%-confidence intervals of all odds ratios include the value 1. Accordingly, there is a chance that the direction of the relationships is the opposite of what was observed. Summing up, neither individual nor dyadic coping nor relationship satisfaction at t0 could predict relationship stability of adolescent couples one year later.

Discussion

The purpose of the current investigation was to examine the predictive power of individual and dyadic coping on relationship satisfaction and stability after one year in late adolescent couples. Results indicate that individual and dyadic coping did not explain additional variance in relationship satisfaction in stable couples after one year when considering couples' initial relationship satisfaction. Only females' own individual coping skills tended to explain additional variance in their relationship satisfaction one year later: Female adolescents in romantic relationships who reported using more functional coping in times of stress at t0 reported higher relationship satisfaction at t1. As only a marginal effect was found, this result has to be viewed with caution. Conversely, individual and dyadic coping has been found to correlate with initial relationship satisfaction as well as with

relationship satisfaction after one year. It can be assumed that individual and dyadic coping skills are relevant for current relationship satisfaction in adolescents' romantic relationships but have not yet predictive power on relationship outcomes longitudinally. Neither relationship satisfaction, nor individual or dyadic coping predicted relationship stability in our sample after one year. Accordingly, stability or instability of romantic relationships in adolescence has to be related to other variables.

Thirty percent of the couples in our initial sample separated during one year. Compared with adult couples, this range is remarkably high (e.g., Bodenmann & Cina, 2005). But considering partners' age and related developmental phase, even a stable relationship of one year (as provided for the first investigation) is remarkably long. However, the ephemeral nature and instability of romantic relationships and relationships with only moderate length (i.e., several months) are supposed as being most normative in adolescence (Collins et al., 2009). Furthermore, the amount of separation in one year may reflect that couples in our sample were in the affection phase of romantic development as it has been proposed by Brown (1999). He supposed in his four phase theory of romantic development that intimate relationships in late adolescence shift away from a more general peer context in which earlier romantic relationships take place (initiation phase / status phase) toward the relationship itself (affection phase). Romantic relationships in affection phase tend to provide higher levels of intimacy, affection and mutual support. They also present the first opportunity to form genuine attachment compared with romantic relationships in earlier stages. But individuals start to look behind the present and gain a more long-term perspective on their relationships only in the subsequent bonding phase (Brown, 1999). This long-term perspective could make the difference as the commitment increases and some of the emotionality is replaced by a more pragmatic view of the relationship. Seen in this light, individual and dyadic competencies for accurate dealing with stress should then become more important.

There are several additional explanations for our findings: First, adolescents may still get a high amount of support in times of stress from their parents. Even if support from the partner is subjectively of high importance (Furman & Shomaker, 2008), taking into consideration attachment theories, secure attachment and support from parents may be even more important for adolescents relationship satisfaction and stability in this stage of development. Parental support and secure attachment may be still beneficial for their adolescent children in times of stress and provide the basis for exploring intimate relationships (Seiffge-Krenke, Overbeek, & Vermulst, 2010). Accordingly, it is likely that not before adolescent couples live together and share the daily context in all its facets the partner becomes the most available support provider. Individual and dyadic coping skills may become increasingly important at this point of time for future relationship satisfaction and relationship stability. It would be of great interest to investigate this specific change in young individuals' and couples' life. Second, Seiffge-Krenke et al. (2010) recently noted that romantic relationships in adolescence entail many other components (e.g., passion, strong physical attraction), hence support from the partner may perhaps play a subordinate role in evaluating the quality of a relationship for adolescents. Likewise, it may be that other factors as for example the perception of the romantic relationship as a safe haven or commitment to the relationship are more important for relationship satisfaction and stability in adolescence than coping with stress (Duemmler & Kobak, 2001).

Limitations

Several limitations have to be taken into consideration: First, initial relationship duration of our study sample may have provoked a selection bias. We assumed that young adults in relationships of longer duration show higher attachment toward the partner, and accordingly the partner as support provider is of higher importance in times of stress (Connolly & Johnson, 1996). Contrary, it is possible that partners in longer-lasting

relationships in this stage of development have initially better individual and dyadic coping competencies compared with individuals having relationships of shorter duration.

Accordingly, it would be of high interest to compare adolescents who have more romantic relationships of shorter duration (less than 1 year) with those having fewer romantic relationships of longer duration in coping competencies. Second, it is likely that individual and dyadic coping skills interact with adolescents' stress experience. Accordingly, future studies should include stress (in particular daily-hassles) as a key variable. It would be of great interest to examine different sources of stress, as for example social stress (e.g., stress with parents and close friends), educational or work stress (e.g. school-related stress), or other daily hassles emerging outside the relationship (e.g., financial stress, leisure stress). Different sources of stress might have different impacts on adolescents' romantic relationships. Third, the present study used self-report measures only, which might have been influenced by perceptual biases (e.g., the idealization of the partner) or third variables (e.g., exposure to external stressors). Future research should include observational data for an unbiased perspective, for example of both partners' dyadic coping behavior. However, our study is among the first introducing relationship satisfaction and stability in a short-term longitudinal perspective.

Conclusion

Even though we did not find effects of individual and dyadic coping on relationship satisfaction and stability over time, our results contribute further insights in adolescents' romantic relationships. Our knowledge on initiation, development and decline of particular relationships is still limited (Collins et al., 2009). Given the importance of these relationships for adolescents' physical and mental well-being (e.g., Adam et al., 2011) and their potential impact on future relationships (e.g., Madsen & Collins, 2011), further research is needed to

determine beneficial and harmful influences on adolescent romantic partners and the relationship itself.

Table 7.1

Descriptives and correlations of Predictor and Outcome Variables for Females (n = 54) and Males (n = 55) in Stable Relationships

Variables	Descriptives				Bivariate Correlations							
	Females		Males									
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7	8
1 RD	2.11	0.99	2.18	1.09		-.06	-.43**	-.07	-.19	-.25 [†]	-.22	-.06
2 IC	2.74	0.35	2.92	0.37	-.30*		.06	.11	.28*	.13	.34*	.35*
3 ICP	2.87	0.39	2.78	0.34	-.03	.07		.13	.27*	.20	.19	.19
4 DC	3.91	0.53	3.92	0.60	-.17	.19	.25 [†]		.27 [†]	.40**	.22	.32*
5 DCP	3.80	0.62	4.00	0.50	-.03	-.02	.14	.22		.43**	.52***	.37**
6 RS _{t0}	4.49	0.39	4.46	0.36	-.23 [†]	.11	.19	.32*	.08		.59***	.57***
7 RSP _{t0}	4.40	0.42	4.55	0.32	-.19	-.01	.06	.22	.26*	.43**		.54***
8 RS _{t1}	4.26	0.60	4.28	0.47	-.07	.24 [†]	.25 [†]	.27*	.04	.35**	.01	

Note. Females' bivariate correlations are presented above the diagonal; Males' correlations are presented under the diagonal. RD = Relationship Duration; IC = Individual Coping; ICP = Partners' Individual Coping; DC = Dyadic Coping; DCP = Partners' Dyadic Coping; RS_{t0} = Relationship Satisfaction t0; RSP_{t0} = Partners' Relationship Satisfaction t0; RS_{t1} = Relationship Satisfaction t1. [†] $p < .10$; * $p < .05$; ** $p < .01$; *** $p < .001$

Table 7.2

Hierarchical Regressions on Females' and Males' Relationship Satisfaction After One Year

	<i>B</i>	<i>SE B</i>	
<i>DV: Females' Relationship Satisfaction t1 (n = 54)</i>			
Relationship Duration	.10	.07	.16
Individual Coping	.35	.20	.21 [†]
Individual Coping Partner	.18	.19	.12
Dyadic Coping	.09	.14	.08
Dyadic Coping Partner	.01	.13	.01
Relationship Satisfaction (RS _{t0})	.60	.23	.39**
Relationship Satisfaction Partner (RSP _{t0})	.32	.21	.23
<i>R</i> ²		.46***	
<i>DV: Males' Relationship Satisfaction t1 (n = 55)</i>			
Relationship Duration	.03	.06	.06
Individual Coping	.23	.17	.18
Individual Coping Partner	.21	.19	.15
Dyadic Coping	.10	.11	.13
Dyadic Coping Partner	.02	.13	.02
Relationship Satisfaction (RS _{t0})	.45	.20	.34*
Relationship Satisfaction Partner (RSP _{t0})	-.25	.22	-.17
<i>R</i> ²		.23 [†]	

Note. [†] $p < .10$; * $p < .05$; ** $p < .01$; *** $p < .001$

Table 7.3

Descriptives and Correlations of Relationship Duration, Individual Coping, Dyadic Coping and Relationship Satisfaction at First Assessment

(N = 99 Couples)

Variables	Descriptives					Bivariate Correlations			
	Females		Males		<i>t</i>	1	2	3	4
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>					
1 Relationship Duration	2.06	1.01	2.06	1.01	—	—	.08	.01	-.05
2 Individual Coping	2.74	0.37	2.88	0.38	2.83**	-.14	.10	.18 [†]	.23*
3 Dyadic Coping	3.98	0.55	3.81	0.59	2.33*	-.04	.19 [†]	.21*	.44***
4 Relationship Satisfaction (RS _{t0})	3.81	0.41	4.35	0.42	2.28*	-.08	.19 [†]	.36***	.56***

Note. Bivariate correlations for female adolescents' scores are displayed above the diagonal; those for male adolescents are displayed below the diagonal. Correlations between female and male adolescents could be found on the diagonal (printed in bold).

[†] $p < .10$; * $p < .05$; ** $p < .01$; *** $p < .001$

Table 7.4

Logistic Regression Predicting Relationship Stability of Adolescent Couples After One Year
(N = 99 Couples)

	<i>B</i>	<i>SE B</i>	<i>95% CI for Odds Ratio</i>		
			<i>LOW</i>	<i>OR</i>	<i>UP</i>
Constant	-5.20	3.18		0.01	
Relationship Duration	0.32	0.25	0.84	1.38	2.26
Individual Coping Females	0.19	0.66	0.33	1.20	4.40
Individual Coping Males	0.16	0.63	0.34	1.17	4.01
Dyadic Coping Females	-0.89 [†]	0.50	0.15	0.41	1.11
Dyadic Coping Males	0.44	0.41	0.69	1.56	3.50
Relationship Satisfaction Females (RS _{t0})	1.35 [†]	0.74	0.90	3.86	16.50
Relationship Satisfaction Males (RS _{t0})	0.08	0.71	0.27	1.08	4.32
<i>Pseudo-R</i> ² (Nagelkerke / Cox & Snell)			.13 / .09		
<i>t</i> ² (<i>df</i>)			9.64(7)		

Note. CI = Confidence Interval; OR = Odds Ratios; LOW = Lower bound of CI; OR = Odds Ratio; UP = Upper bound of CI.

[†]*p* < .10; **p* < .05; ***p* < .01; ****p* < .001

GENERAL DISCUSSION

8. Summary of Findings

The main objective of this thesis was to gain further insights into the function and meaning of dyadic coping in adolescents' romantic relationships. Even though results were reported and discussed in detail in the previous studies (see Chapter 5-7), each key message will be summarized once more in the following: (1) The finding of stress spillover only in dependence of dyadic coping may indicate that dyadic coping in late adolescent couples does not yet have a primary stress-reducing, but rather intimacy promoting function. (2) Beside their individual coping skills, dyadic coping has been found to be related with relationship satisfaction and physical and mental well-being of both, adolescent females and males. (3) Dyadic coping might be relevant for current relationship satisfaction, but has not yet predictive power on relationship outcomes in late adolescent couples longitudinally.

Study I point out that extra-dyadic stress in late adolescent couples only spills over into the relationship leading to higher intra-dyadic stress when perceived dyadic coping from the partner was low. In contrast, perceiving partner's dyadic coping as highly supportive seems to bring the couples in stressful times even closer together. This finding could be an indication that dyadic coping in late adolescent couples does not yet have a primary stress-reducing, but rather intimacy promoting function. This assumption is further supported by Bodenmann (1997) and Cutrona (1996), who assumed that beside its stress buffering function, dyadic coping might strengthen the cohesion and feeling of we-ness within couples.

In Study II, dyadic coping has been found to be positively related with relationship satisfaction in adolescent couples, even when considering both partners' individual coping skills. This finding is in line with previous findings on dyadic coping in adult couples (e.g.,

Bodenmann et al., 2011; Herzberg, 2013; Papp & Witt, 2010) and findings on partner support in late adolescent couples (e.g., Galliher et al., 2004). In addition, it provides further support for the assumption that dyadic coping may have a cohesive function within late adolescent couples. Dyadic coping has been also associated with adolescent partners' physical and mental well-being beyond the impact of individual coping skills. Particularly adolescent males seem to benefit from positive dyadic coping within their romantic relationships for their well-being. Even though causality of the effects cannot be determined, it might be supposed that dyadic coping and well-being are mutually interdependent.

Neither individual nor dyadic coping at the first measurement could predict relationship stability and relationship satisfaction (within stable couples) after one year (see also Study III in Chapter 7). Accordingly, it can be assumed that individual and dyadic coping skills might be relevant for current relationship satisfaction in adolescents' romantic relationships but have not yet predictive power on relationship outcomes longitudinally. Seen in the light of sequential relationship development (Brown, 1999), maintaining a romantic relationship might not be the main goal of adolescents' romantic involvement – even not in late adolescence. For example, Bouchey (2007) reported that solely late adolescents with low self-esteem gave staying in a relationship a high importance according to other romantic relationship relevant aspects as communication or acceptance by the partner. Rather, this phase of development may be associated with trying out various partners, learning about own preferences and establishing skills as dyadic coping or conflict communication with romantic partners. According to the earlier mentioned social change and the four phase model of romantic development (Brown, 1999), it can be assumed that maintaining romantic relationships becomes increasingly important in later stages of development when finding a marital partner has a higher priority.

Taken together, all our findings support the assumption of a sequential perspective of romantic development in adolescence since similarities as well as differences between our sample and findings on couples in later stages of development were found. The presented contributions provide additional insights on the function of dyadic coping and romantic relationships in late adolescence. However, each of these findings and assumptions need further investigation.

9. Strengths and Limitations

The presented studies are among the first examining dyadic coping in adolescent couples. Furthermore, a dyadic approach was used to examine mutual interdependence between adolescent partners. Only a few studies used similar statistical analyses or information from both partners in introducing adolescents' romantic relationships. However, the presented results underlie several limitations. Many of them have been mentioned in the discussion section of the contributions above.

Limitations concerning all empirical studies in the present thesis are pointed out in the following: First, in all contributions only self-report measures were used with the possibility of biases in the assessed variables as they could be influenced by third variables (e.g., the idealization of the partner). Future research should include observational data for an unbiased perspective, for example of both partners' dyadic coping behavior. Second, the requirement of at least one year relationship duration may have provoked a selection bias. Initial relationship duration of one year was based on the assumption that adolescent partners in highly stable relationships are more important support provider compared with adolescent partners in briefer romantic relationships. In contrast, it can also be assumed that adolescent partners in these relationships have altogether better coping competencies compared with individuals in relationships of shorter duration.

Above all, several difficulties in investigating romantic relationships have to be mentioned: First, romantic relationships in adolescence fluctuate (Carver, Joyner, & Udry, 2003). Even though the duration of romantic relationships increases with age (Connolly & Johnson, 1996), the examination of romantic relationships in adolescence needs a perspective of continuities and discontinuities over time (Brown et al., 1999). Second, romantic relationships in adolescence are characterized by high interrelations with other relationships

(e.g., with parents, friends). For example, adolescents are often still dependent on their parents in some manner (e.g., financially), which may affect their romantic relationships in several ways (Pinquart & Fabel, 2009). Research on romantic relationships in adolescence accordingly needs an interrelated view of romantic relationships with other salient relationships (Brown et al., 1999). Third, dynamic and functioning of romantic relationships varies according to the involved individuals' age. During adolescence and even into transition to young adulthood a lot of contextual, intra- and inter-individual changes emerge (Arnett, 2000; Collins et al., 2012; Furman & Winkles, 2012).

10. Future Research

The research topic of romantic relationships in adolescence is still young, and dyadic coping in adolescent couples need further investigation. Specifically, the following questions should be examined in future research: First, different sources of daily hassles (e.g., social stress, educational stress, financial stress, leisure stress) might impact romantic relationships differently. For a better understanding of the meaning and function of dyadic coping in adolescent couples, different contexts of daily hassles have to be investigated. Second, it would be of high interest to include other indicators of romantic relationships as for example intimacy, self-disclosure, or commitment in dyadic coping research in adolescent couples. Third, since romantic relationships in adolescence are characterized by high interrelations with other relationships (e.g., with parents, peers), an approach involving other salient persons is needed. For example, dyadic coping with parents or peers should be included in the investigation of dyadic coping in romantic relationships in this stage of development. Final, dyadic coping within different age cohorts (younger as well as older adolescent couples) should be examined. Moreover, longitudinal studies are needed for a better understanding of the developmental pathway of dyadic coping and romantic relationships in adolescence in general.

11. A Word to Practitioners

Romantic relationships are a main source of strong emotions, rumination and insecurity in adolescence (Larson et al., 1999). Furthermore, romantic relationships in adolescence exert influence on current mental well-being and ongoing social and emotional development of the involved romantic partners, and are a learning field for future relationships (Scanlan, Bailey, & Parker, 2012a). Current relationship education and/or prevention programs, however, focus mainly on adult couples (for an overview see Bodenmann & Kessler, 2011; Job, Bodenmann, Baucom, & Hahlweg, 2014). With regard to intimate relationship education in adolescence most offers address sexual education and dating violence prevention (e.g., sexual education in school, information platforms in internet). Adolescents receive beside their family home and peer groups only limited information about other romantic issues as for example dealing with conflicts in their relationships, how to handle a break-up, or how to handle different desire for proximity or distance within romantic relationships. Given the importance of romantic relationships in adolescence a broader range of information about these topics, or even an education program taking up and strengthen adolescents to cope with these issues would be desirable. Furthermore, relationship education programs which include the enhancement of dyadic coping might be most appropriate when young couples move together and share daily life with all its facets.

A first step in this direction is to consider on past and current romantic relationships when counseling or treating adolescent problems (Furman & Shaffer, 2003; Scanlan, Bailey, & Parker, 2012b). For practitioners, a short guideline how to explore romantic relationships and how to strengthen involved individuals can be offered (this guideline is based on current research and recommendations made by the Australian National Youth Mental and Health Foundation; Scanlan et al., 2012a, 2012b):

Keep in mind that...

- Romantic relationships in adolescence are normative and are closely related to other developmental tasks as for example detachment from the family and identity development.
- Romantic relationships (and even not having a romantic relationship) could contribute to ongoing difficulties and/or psychopathological symptomatology.
- Romantic relationships are source of stress and of most salience for current well-being, social and emotional development as well as for future relationship expectations.
- Romantic relationships in adolescence may be both a risk factor as well as a resource for involved individuals.

Ask about relationship history in the assessment:

- **When the adolescent currently is involved in a romantic relationship:** Ask how serious the relationship is. Ask how parents and friends are disposed towards the romantic partner. What has changed within these relationships since having the romantic relationship and with who does the adolescent talk about the romantic relationship? Explore emotions and ask about conflicts and sexual activity within the relationship.
- **When the adolescent currently is not involved in a romantic relationship:** Ask about how important it is for the adolescent to have a romantic relationship. If he/she ever have had a romantic relationship, and if so, how serious this/these relationship/s was/were. In case of need, normalize being single and/or having limited sexual experience. Take adolescents' distress about not having a relationship or about a recent break-up earnest.
- **Ask about (emotional and sexual) violence in past and current romantic relationships**

When the current problem appears to be related to romantic relationship difficulties or a recent break-up:

- Strengthen and expand adolescents' adaptive coping strategies and other social relationships (e.g., with parents or friends).
- Build up skills in areas as conflict resolution, negotiation and/or assertiveness.
- Strengthen adolescents' self-esteem and social competence.
- Anger management might also be suitable.

12. Closing Remark

Adolescence and especially late adolescence seems to be a unique and most salient period for romantic development (Bradbury & Karney, 2010). However, we still know few about the impact and function of these relationships. This thesis liked to throw a spotlight on late adolescent romantic relationships and the importance of dyadic coping within these relationships. Summing up, it can be assumed that adolescents learn how to cope dyadically with the partner in this phase of development, and that dyadic coping might deepen intimacy between adolescent partners. It is of great interest to pursue this way, to gain further insights on how couples in this and later developmental stages can be supported accurately, to strengthen intimate relationships early in life, and to contribute to healthy and strong intimate relationships during the entire life.

REFERENCES

- Abbott, T. (2005). *Social and personality development*. New York: Routledge.
- Adam, E. K., Chyu, L., Hoyt, L. T., Doane, L. D., Boisjoly, J., Duncan, G. J., ... McDade, T. W. (2011). Adverse adolescent relationship histories and young adult health: Cumulative effects of loneliness, low parental support, relationship instability, intimate partner violence, and loss. *Journal of Adolescent Health, 49*(3), 278–286. doi:10.1016/j.jadohealth.2010.12.012
- Aiken, L. S., & West, S. G. (1991). *Multiple regression: Testing and interpreting interactions*. Newbury Park, CA: Sage.
- Arnett, J. J. (2000). Emerging adulthood: A theory of development from the late teens through the twenties. *American Psychologist, 55*(5), 469–480. doi:10.1037//0003-066X.55.5.469
- Atkins, D. C. (2005). Using multilevel models to analyze couple and family treatment data: Basic and advanced issues. *Journal of Family Psychology, 19*(1), 98–110. doi:10.1037/0893-3200.19.1.98
- Auslander, B. A., Short, M. B., Succop, P. A., & Rosenthal, S. L. (2009). Associations between parenting behaviors and adolescent romantic relationships. *Journal of Adolescent Health, 45*(1), 98–101. doi:10.1016/j.jadohealth.2008.12.014
- Badr, H., & Acitelli, L. K. (2005). Dyadic adjustment in chronic illness: Does relationship talk matter? *Journal of Family Psychology, 19*(3), 465–469. doi:10.1037/0893-3200.19.3.465
- Barr, A. B., Simons, R. L., & Stewart, E. A. (2013). The code of the street and romantic relationships: A dyadic analysis. *Personal Relationships, 20*(1), 84–106. doi:10.1111/j.1475-6811.2012.01398.x

- Beach, S. R., Martin, J. K., Blum, T. C., & Roman, P. M. (1993). Effects of marital and co-worker relationships on negative affect: Testing the central role of marriage. *The American Journal of Family Therapy*, 21(4), 313–323.
doi:10.1080/01926189308251002
- Berg, C. A., & Upchurch, R. (2007). A developmental-contextual model of couples coping with chronic illness across the adult life span. *Psychological Bulletin*, 133(6), 920–954. doi:10.1037/0033-2909.133.6.920
- Bierhoff, H.-W. (2014). Sozialer Austausch [Social exchange]. In M. A. Wirtz (Ed.), *Dorsch - Lexikon der Psychologie [Dorsch - Encyclopedia of psychology]* (17th ed., p. 1450). Bern: Huber.
- Bodenmann, G. (1995). A systemic-transactional conceptualization of stress and coping in couples. *Swiss Journal of Psychology*, 54(1), 34–49.
- Bodenmann, G. (1997). Dyadic coping: A systemic-transactional view of stress and coping among couples: Theory and empirical findings. *European Review of Applied Psychology*, 47(2), 137–141.
- Bodenmann, G. (2000). *Stress und Coping bei Paaren [Stress and coping in couples]*. Hogrefe Verlag.
- Bodenmann, G. (2003). Welche Bedeutung haben Partnerschaft und Liebe für Jugendliche heute? Eine deskriptive Untersuchung [What meaning have intimate relationships and love for adolescents nowadays? A descriptive study]. *Zeitschrift Für Familienforschung*, 15(2), 91–104.
- Bodenmann, G. (2005). Dyadic coping and its significance for marital functioning. In T. A. Revenson, K. Kayser, & G. Bodenmann (Eds.), *Couples coping with stress: Emerging perspectives on dyadic coping* (pp. 33–50). Washington, DC: American Psychological Association.

- Bodenmann, G. (2008a). Dyadic coping and the significance of this concept for prevention and therapy. *Zeitschrift für Gesundheitspsychologie*, 16(3), 108–111.
doi:10.1026/0943-8149.16.3.108
- Bodenmann, G. (2008b). *Dyadisches Coping Inventar (DCI) [Dyadic Coping Inventory (DCI)]*. Bern: Huber.
- Bodenmann, G., Charvoz, L., Bradbury, T. N., Bertoni, A., Iafrate, R., Giuliani, C., ... Behling, J. (2007). The role of stress in divorce: A three-nation retrospective study. *Journal of Social and Personal Relationships*, 24(5), 707–728.
doi:10.1177/0265407507081456
- Bodenmann, G., & Cina, A. (2005). Stress and coping among stable-satisfied, stable-distressed and separated/divorced swiss couples: A 5-year prospective longitudinal study. *Journal of Divorce & Remarriage*, 44(1/2), 71–89. doi:10.1300/J087v44n01-04
- Bodenmann, G., & Kessler, M. (2011). Präventionsprogramme für Paare - Methoden und Wirksamkeit [Relationship enhancement programs - methods and efficacy]. *Familiendynamik*, 36, 2–11.
- Bodenmann, G., Ledermann, T., & Bradbury, T. N. (2007). Stress, sex, and satisfaction in marriage. *Personal Relationships*, 14(4), 551–569. doi:10.1111/j.1475-6811.2007.00171.x
- Bodenmann, G., Meuwly, N., & Kayser, K. (2011). Two conceptualizations of dyadic coping and their potential for predicting relationship quality and individual well-being: A comparison. *European Psychologist*, 16(4), 255–266. doi:10.1027/1016-9040/a000068
- Bodenmann, G., Pihet, S., & Kayser, K. (2006). The relationship between dyadic coping and marital quality: A 2-year longitudinal study. *Journal of Family Psychology*, 20(3), 485–493. doi:10.1037/0893-3200.20.3.485
- Bodenmann, G., & Randall, A. K. (2012). Common factors in the enhancement of dyadic coping. *Behavior Therapy*, 43(1), 88–98. doi:10.1016/j.beth.2011.04.003

- Bodenmann, G., Schär, M., & Gmelch, S. (2008). *Multidimensional Stress Questionnaire for Couples (MDQ-P)*. Unpublished test, Zurich, University of Zurich.
- Bodenmann, G., & Shantinath, S. D. (2004). The Couples Coping Enhancement Training (CCET): A new approach to prevention of marital distress based upon stress and coping*. *Family Relations*, 53(5), 477–484. doi:10.1111/j.0197-6664.2004.00056.x
- Bodenmann-Kehl, C. (1999). *Eine Analyse spezifischer Ansatzpunkte zur Förderung der familiären Kompetenz*. Fribourg: University Press.
- Bonica, C., & Daniel, J. H. (2003). Helping adolescents cope with stress during stressful times. *Current Opinion in Pediatrics*, 15(4), 385–390.
- Bouchey, H. A. (2007). Perceived romantic competence, importance of romantic domains, and psychosocial adjustment. *Journal of Clinical Child & Adolescent Psychology*, 36(4), 503–514. doi:10.1080/15374410701653120
- Bowlby, J. (1969). *Attachment and loss. Vol. 1: Attachment*. London: Hogart.
- Bowlby, J. (1973). *Attachment and loss. Vol. 2: Separation: Anxiety and anger*. London: Hogarth and Institute of Psychoanalysis.
- Bradbury, T. N., & Karney, B. R. (2010). *Intimate relationships*. New York: W.W. Norton.
- Brown, B. B. (1999). “You’re going out with who?”: Peer group influences on adolescent romantic relationships. In W. Furman, B. B. Brown, & C. Feiring (Eds.), *The development of romantic relationships in adolescence* (pp. 291–329). New York, NY, US: Cambridge University Press.
- Brown, B. B., Feiring, C., & Furman, W. (1999). Missing the love boat: Why research have shied away from adolescent romance. In W. Furman, B. B. Brown, & C. Feiring (Eds.), *The development of romantic relationships in adolescence* (pp. 1–16). New York: Cambridge University Press.
- Brown, G. W., & Harris, T. (1978). *Social Origins of Depression*. New York: Routledge.

- Bundesamt für Statistik [Federal Statistical Office] (BfS). (2014). Swiss Statistical Encyclopedia: Components of population change - Average age at first marriage. Retrieved December 14, 2014, from <http://www.bfs.admin.ch/bfs/portal/de/index/themen/01/06/blank/key/05/04.html>
- Carver, C. S. (1997). You want to measure coping but your protocol's too long: Consider the brief cope. *International Journal of Behavioral Medicine*, 4(1), 92–100.
- Carver, C. S., Schreier, M. F., & Weintraub, J. K. (1989). Assessing coping strategies: A theoretically based approach. *Journal of Personality and Social Psychology*, 56(2), 267–283.
- Carver, K., Joyner, K., & Udry, J. R. (2003). National estimates of adolescent romantic relationships. In P. Florsheim (Ed.), *Adolescent romantic relations and sexual behavior. Theory, research and practical implications*. (pp. 23–56). Maryland, US: Lawrence Earlbaum Associates.
- Cauffman, E., & Steinberg, L. (2000). (Im)maturity of judgment in adolescence: Why adolescents may be less culpable than adults. *Behavioral Sciences & the Law*, 18(6), 741–760. doi:10.1002/bsl.416
- Chow, C. M., Roesle, H., Buhrmester, D., & Underwood, M. K. (2012). Transformation in friend relationships across the transition into adulthood. In *Relationship pathways. From adolescence to young adulthood* (pp. 91–111). Thousand Oaks, CA: Sage.
- Cohen, J., Cohen, P., West, S. G., & Aiken, L. S. (2003). *Applied multiple regression-correlation analysis for the behavioral sciences*. Mahwah: Lawrence Erlbaum Associates.
- Collins, W. A. (1997). Relationships and development during adolescence: Interpersonal adaptation to individual change. *Personal Relationships*, 4(1), 1–14. doi:10.1111/j.1475-6811.1997.tb00126.x

- Collins, W. A. (2003). More than myth: The developmental significance of romantic relationships during adolescence. *Journal of Research on Adolescence*, 13(1), 1–24.
doi:10.1111/1532-7795.1301001
- Collins, W. A., Raby, K. L., & Causadiaz, J. M. (2012). Transformations in close relationship networks: Parent-child relationships and their social extensions. In B. Laursen & W. A. Collins (Eds.), *Relationship pathways. From adolescence to young adulthood* (pp. 3–22). Thousand Oaks, CA: Sage.
- Collins, W. A., & Repinski, D. J. (1994). Relationships during adolescence: Continuity and change in interpersonal perspective. In R. Montemayor, G. R. Adams, & T. P. Gullota (Eds.), *Personal relationships during adolescence* (pp. 7–36). California: Sage.
- Collins, W. A., & Sroufe, L. A. (1999). Capacity for intimate relationships: A developmental construction. In W. Furman, B. B. Brown, & C. Feiring (Eds.), *The development of romantic relationships in adolescence* (pp. 125–148). New York: Cambridge University Press.
- Collins, W. A., Welsh, D. P., & Furman, W. (2009). Adolescent romantic relationships. *Annual Review of Psychology*, 60(1), 631–652.
doi:10.1146/annurev.psych.60.110707.163459
- Compas, B. E., Connor-Smith, J. K., Saltzman, H., Thomsen, A. H., & Wadsworth, M. E. (2001). Coping with stress during childhood and adolescence: Problems, progress, and potential in theory and research. *Psychological Bulletin*, 127(1), 87–127.
doi:10.1037//0033-2909.127.1.87
- Compas, B. E., Davis, G. E., & Forsythe, C. J. (1985). Characteristics of life events during adolescence. *American Journal of Community Psychology*, 13(6), 677–691.
- Compas, B. E., Orosan, P. G., & Grant, K. E. (1993). Adolescent stress and coping: implications for psychopathology during adolescence. *Journal of Adolescence*, 16(3), 331–349. doi:10.1006/jado.1993.1028

- Conger, J. J., & Petersen, A. C. (1984). *Adolescence and youth: Psychological development in a changing world* (3rd edition.). New York: Harper & Row.
- Connolly, J. A., Craig, W., Goldberg, A., & Pepler, D. (1999). Conceptions of cross-sex friendships and romantic relationships in early adolescence. *Journal of Youth and Adolescence*, 28(4), 481–494. doi:10.1023/A:1021669024820
- Connolly, J. A., Craig, W., Goldberg, A., & Pepler, D. (2004). Mixed-gender groups, dating, and romantic relationships in early adolescence. *Journal of Research on Adolescence*, 14(2), 185–207.
- Connolly, J. A., & Goldberg, A. (1999). Romantic relationships in adolescence: The role of friends and peers in their emergence and development. In W. Furman, B. B. Brown, & C. Feiring (Eds.), *The development of romantic relationships in adolescence* (pp. 266–290). New York: Cambridge University Press.
- Connolly, J. A., & Johnson, A. M. (1996). Adolescents' romantic relationships and the structure and quality of their close interpersonal ties. *Personal Relationships*, 3(2), 185–195. doi:10.1111/j.1475-6811.1996.tb00111.x
- Connolly, J. A., & McIsaac, C. (2009). Adolescents' explanations for romantic dissolutions: A developmental perspective. *J. Adolesc.*, 32(5), 1209–1223.
- Connor-Smith, J. K., Compas, B. E., Wadsworth, M. E., Thomsen, A. H., & Salzman, H. (2000). Responses to stress in adolescence: Measurement of coping and involuntary stress responses. *Journal of Consulting and Clinical Psychology*, 68(6), 976–992. doi:10.1037/0022-006X.68.6.976
- Cook, W. L., & Kenny, D. A. (2005). The Actor–Partner Interdependence Model: A model of bidirectional effects in developmental studies. *International Journal of Behavioral Development*, 29(2), 101–109. doi:10.1080/01650250444000405

- Coyne, J. C., & Smith, D. A. (1991). Couples coping with a myocardial infarction: A contextual perspective on wives' distress. *Journal of Personality and Social Psychology*, 61(3), 404–412. doi:10.1037/0022-3514.61.3.404
- Cramer, D. (2006). How a supportive partner may increase relationship satisfaction. *British Journal of Guidance & Counselling*, 34(1), 117–131.
doi:10.1080/03069880500483141
- Cutrona, C. E. (1996). Social support as a determinant of marital quality. In G. R. Pierce, B. R. Sarason, & I. G. Sarason (Eds.), *Handbook of Social Support and the Family* (pp. 173–194). New York: Springer.
- DeMinzi, M. C. R. (2006). Stress and coping in adolescence. In A. Columbus (Ed.), *Advances in psychology research* (pp. 67–84). Hauppauge, NY: Nova Science Publishers.
- Duemmler, S., & Kobak, R. (2001). The development of commitment and attachment in dating relationships: attachment security as relationship construct. *Journal of Adolescence*, 24(3), 401–415. doi:10.1006/jado.2001.0406
- Dumont, M., & Provost, M. A. (1999). Resilience in adolescents: Protective role of social support, coping strategies, self-esteem, and social activities on experience of stress and depression. *Journal of Youth and Adolescence*, 28(3), 343–363.
doi:10.1023/A:1021637011732
- Falconier, M. K., Nussbeck, F. W., & Bodenmann, G. (2013). Immigration stress and relationship satisfaction in latino couples: The role of dyadic coping. *Journal of Social and Clinical Psychology*, 32(8), 813–843. doi:10.1521/jscp.2013.32.8.813
- Feinstein, S. C., & Ardon, M. S. (1973). Trends in dating patterns and adolescent development. *Journal of Youth and Adolescence*, 2(2), 157–166.
doi:10.1007/BF02214092
- Field, T., Diego, M., Pelaez, M., Deeds, O., & Delgado, J. (2009). Breakup distress in university students. *Adolescence*, 44(176), 705–727.

- Flammer, A., & Alsaker, F. D. (2002). *Entwicklungspsychologie der Adoleszenz*.
[*Developmental psychology of adolescence*]. Bern: Hans Huber.
- Florsheim, P. (2003a). Adolescent romantic and sexual behavior: What we know and where we go from here. In P. Florsheim (Ed.), *Adolescent romantic relations and sexual behavior. Theory, research and practical implications*. (pp. 371–385). New Jersey: Lawrence Earlbaum Associates.
- Florsheim, P. (2003b). *Adolescent romantic relations and sexual behavior. Theory, research and practical implications*. New Jersey: Lawrence Earlbaum Associates.
- Folkman, S. (2009). Questions, answers, issues, and next steps in stress and coping research. *European Psychologist*, 14(1), 72–77. doi:10.1027/1016-9040.14.1.72
- Furman, W. (2002). The emerging field of adolescent romantic relationships. *Current Directions in Psychological Science*, 11(5), 177 –180. doi:10.1111/1467-8721.00195
- Furman, W., Brown, B. B., & Feiring, C. (1999). *The development of romantic relationships in adolescence*. New York: Cambridge University Press.
- Furman, W., & Buhrmester, D. (1992). Age and sex differences in perceptions of networks of personal relationships. *Child Development*, 63(1), 103. doi:10.1111/1467-8624.ep9203091729
- Furman, W., & Shaffer, L. (2003). The role of romantic relationships in adolescent development. In P. Florsheim (Ed.), *Adolescent romantic relations and sexual behavior. Theory, research and practical implications*. (pp. 3–22). New Jersey: Lawrence Earlbaum Associates.
- Furman, W., & Shomaker, L. B. (2008). Patterns of interaction in adolescent romantic relationships: Distinct features and links to other close relationships. *Journal of Adolescence*, 31(6), 771–788. doi:10.1016/j.adolescence.2007.10.007

- Furman, W., & Simon, V. A. (2006). Actor and partner effects of adolescents' romantic working models and styles on interactions with romantic partners. *Child Development*, 77(3), 588–604. doi:10.1111/j.1467-8624.2006.00892.x
- Furman, W., & Wehner, E. (1994). Romantic views: Toward a theory of adolescent romantic relationships. In R. Montemayor (Ed.), *Advances in adolescent development, Vol. 3: Romantic in adolescence* (pp. 168–195). Newbury Park, CA: Sage.
- Furman, W., & Winkles, J. K. (2012). Transformations in heterosexual romantic relationships across the transition to adulthood. In B. Laursen & W. A. Collins (Eds.), *Relationship pathways. From adolescence to young adulthood* (pp. 191–213). Thousand Oaks, CA: Sage.
- Galliher, R. V., Welsh, D. P., Rostosky, S. S., & Kawaguchi, M. C. (2004). Interaction and relationship quality in late adolescent romantic couples. *Journal of Social and Personal Relationships*, 21(2), 203–216. doi:10.1177/0265407504041383
- Garcia, C. (2010). Conceptualization and measurement of coping during adolescence: A review of the literature. *Journal of Nursing Scholarship*, 42(2), 166–185. doi:10.1111/j.1547-5069.2009.01327.x
- Gottman, J. M. (1993). The roles of conflict engagement, escalation, and avoidance in marital interaction: A longitudinal view of five types of couples. *Journal of Consulting and Clinical Psychology*, 61(1), 6–15. doi:10.1037/0022-006X.61.1.6
- Gottman, J. M. (1994). *What predicts divorce?*. Hillsdale, NJ: Erlbaum.
- Gottman, J. M., Coan, J., Carrere, S., & Swanson, C. (1998). Predicting marital happiness and stability from newlywed interactions. *Journal of Marriage and Family*, 60(1), 5–22. doi:10.2307/353438
- Grey, M., & Steinberg, L. (1999). Adolescent romance and the parent-child relationship: A contextual perspective. In W. Furman, B. B. Brown, & C. Feiring (Eds.), *The*

- development of romantic relationships in adolescence* (pp. 235–265). New York: Cambridge University Press.
- Grob, A., & Jaschinski, U. (2003). *Erwachsen werden: Entwicklungspsychologie des Jugendalters [Growing up: Developmental psychology in adolescence]*. Weinheim: Beltz.
- Hagedoorn, M., Sanderman, R., Bolks, H. N., Tuinstra, J., & Coyne, J. C. (2008). Distress in couples coping with cancer: A meta-analysis and critical review of role and gender effects. *Psychological Bulletin*, 134(1), 1–30. doi:10.1037/0033-2909.134.1.1
- Harper, J. M., Schaalje, B. G., & Sandberg, J. G. (2000). Daily hassles, intimacy, and marital quality in later life marriages. *The American Journal of Family Therapy*, 28(1), 1–18. doi:10.1080/019261800261770
- Havighurst, R. J. (1948). *Developmental tasks and education*. New York, NY: McKay.
- Hendrick, S. S. (1988). A generic measure of relationship satisfaction. *Journal of Marriage & Family*, 50(1), 93.
- Herzberg, P. Y. (2013). Coping in relationships: The interplay between individual and dyadic coping and their effects on relationship satisfaction. *Anxiety, Stress & Coping*, 26(2), 136–153. doi:10.1080/10615806.2012.655726
- Hu, L., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling: A Multidisciplinary Journal*, 6(1), 1–55. doi:10.1080/10705519909540118
- Iafrate, R., Bertoni, A., Donato, S., & Finkenauer, C. (2012). Perceived similarity and understanding in dyadic coping among young and mature couples. *Personal Relationships*, 19(3), 401–419. doi:10.1111/j.1475-6811.2011.01369.x
- Iafrate, R., Bertoni, A., Margola, D., Cigoli, V., & Acitelli, L. K. (2012). The link between perceptual congruence and couple relationship satisfaction in dyadic coping. *European Psychologist*, 17(1), 73–82. doi:10.1027/1016-9040/a000069

- Job, A.-K., Bodenmann, G., Baucom, D. H., & Hahlweg, K. (2014). Neuere Entwicklungen in der Prävention und Behandlung von Beziehungsproblemen bei Paaren [New developments in prevention and treatment of relationship problems in couples]. *Psychologische Rundschau*, 65(1), 1–13.
- Karney, B. R., & Bradbury, T. N. (2005). Contextual influences on marriage implications for policy and intervention. *Current Directions in Psychological Science*, 14(4), 171–174. doi:10.1111/j.0963-7214.2005.00358.x
- Karney, B. R., Story, L. B., & Bradbury, T. N. (2005). Marriages in context: Interactions between chronic and acute stress among newlyweds. In T. A. Revenson, K. Kayser, & G. Bodenmann (Eds.), *Couples coping with stress: Emerging perspectives on dyadic coping* (pp. 13–32). Washington, DC, US: American Psychological Association.
- Kelley, H. H., Holmes, J. G., Kerr, N. L., Reis, H. T., Rusbult, C. E., & Lange, P. M. (2003). *An atlas of interpersonal situations*. Cambridge, UK: Cambridge University Press.
- Kenny, D. A., Kashy, D. A., & Cook, W. L. (2006). *Dyadic data analysis*. New York: Guilford Press.
- Knoll, N., Rieckmann, N., & Schwarzer, R. (2005). Coping as a mediator between personality and stress outcomes: A longitudinal study with cataract surgery patients. *European Journal of Personality*, 19(3), 229–247. doi:10.1002/per.546
- Larson, R., Clore, G. L., & Wood, G. A. (1999). The emotions of romantic relationships – Do they wreak havoc on adolescents? In W. Furman, B. B. Brown, & C. Feiring (Eds.), *The development of romantic relationships in adolescence* (pp. 19–49). New York: Cambridge University Press.
- Lazarus, R. S., & Folkman, S. (1984). *Stress, appraisal, and coping*. New York: Springer.
- Ledermann, T., Bodenmann, G., Rudaz, M., & Bradbury, T. N. (2010). Stress, communication, and marital quality in couples. *Family Relations*, 59(2), 195–206. doi:10.1111/j.1741-3729.2010.00595.x

- Ledermann, T., Macho, S., & Kenny, D. A. (2011). Assessing mediation in dyadic data using the actor-partner interdependence model. *Structural Equation Modeling: A Multidisciplinary Journal*, 18(4), 595–612. doi:10.1080/10705511.2011.607099
- Levesque, R. J. R. (1993). The romantic experience of adolescents in satisfying love relationships. *Journal of Youth and Adolescence*, 22(3), 219–251.
doi:10.1007/BF01537790
- Lohman, B. J., & Jarvis, P. A. (2000). Adolescent stressors, coping strategies, and psychological health studied in the family context. *J. Youth Adolesc.*, 29(1), 15–43.
- Macher, S. (2014). Interdependenztheorie [Interdependence Theory]. In M. A. Wirtz (Ed.), *Dorsch - Lexikon der Psychologie [Dorsch - Encyclopedia of psychology]* (17th ed., p. 769). Bern: Huber.
- Madsen, S. D., & Collins, W. A. (2011). The salience of adolescent romantic experiences for romantic relationship qualities in young adulthood. *Journal of Research on Adolescence*, 21(4), 789–801. doi:10.1111/j.1532-7795.2011.00737.x
- Merz, C., Meuwly, N., Randall, A. K., & Bodenmann, G. (2014). Engaging in dyadic coping: Buffering the impact of everyday stress on prospective relationship satisfaction. *Journal of Family Science*, 5(1), 30–37.
- Monroe, S. M., Rohde, P., Seeley, J. R., & Lewinsohn, P. M. (1999). Life events and depression in adolescence: Relationship loss as a prospective risk factor for first onset of major depressive disorder. *Journal of Abnormal Psychology*, 108(4), 606–614.
doi:10.1037/0021-843X.108.4.606
- Mullis, R. L., & Chapman, P. (2000). Age, gender, and self-esteem differences in adolescent coping styles. *Journal of Social Psychology*, 140(4), 539–541.
- Muthén, L. K., & Muthén, B. O. (1998). *Mplus user's guide* (Seventh Edition.). Los Angeles, CA: Muthén & Muthén.

- Neff, L. A., & Karney, B. (2004). How does context affect intimate relationships? Linking external stress and cognitive processes within marriage. *Personality and Social Psychology Bulletin*, 30(2), 134–148. doi:10.1177/0146167203255984
- Nieder, T., & Seiffge-Krenke, I. (2001). Coping with stress in different phases of romantic development. *Journal of Adolescence*, 24(3), 297–311. doi:10.1006/jado.2001.0407
- O'Brien, T. B., DeLongis, A., Pomaki, G., Puterman, E., & Zwicker, A. (2009). Couples coping with stress: The role of empathic responding. *European Psychologist*, 14(1), 18–28. doi:10.1027/1016-9040.14.1.18
- Papp, L. M., & Witt, N. L. (2010). Romantic partners' individual coping strategies and dyadic coping: Implications for relationship functioning. *Journal of Family Psychology*, 24(5), 551–559. doi:10.1037/a0020836
- Pasch, L. A., & Bradbury, T. N. (1998). Social support, conflict, and the development of marital dysfunction. *Journal of Consulting and Clinical Psychology*, 66(2), 219–230. doi:10.1037/0022-006X.66.2.219
- Petersen, A. C., Kennedy, R. E., & Sullivan, P. (1991). Coping with adolescence. In M. E. Colten & S. Gore (Eds.), *Adolescent stress: Causes and consequences* (pp. 93–110). New Jersey, US: Transaction Publishers.
- Pinquart, M., & Fabel, K. (2009). Social change demands, coping and intimate relationship development among German adolescents and adults. *Journal of Social and Personal Relationships*, 26(6-7), 793–810. doi:10.1177/0265407509347933
- Randall, A. K., & Bodenmann, G. (2009). The role of stress on close relationships and marital satisfaction. *Clinical Psychology Review*, 29(2), 105–115. doi:10.1016/j.cpr.2008.10.004
- Repetti, R. L., Wang, S., & Saxbe, D. (2009). Bring it all back home: How outside stressors shape families' everyday lives. *Current Directions in Psychological Science*, 18(2), 106–111.

- Revenson, T. A. (2003). Scenes from a marriage: Examining support, coping, and gender within the context of chronic illness. In J. Suls & K. A. Wallston (Eds.), *Social Psychological Foundations of Health and Illness* (pp. 530–559). Malden, MA: Blackwell Publishing Ltd.
- Revenson, T. A., & Lepore, S. J. (2012). Coping in social context. In A. Baum, T. A. Revenson, & J. E. Singer (Eds.), *Handbook of Health Psychology* (2nd edition., pp. 193–217). New York, NY, US: Psychology Press.
- Russel, S. T., Watson, R. J., & Muraco, J. A. (2012). The development of same-sex intimate relationships during adolescence. In B. Laursen & W. A. Collins (Eds.), *Relationship pathways. From adolescence to young adulthood* (pp. 215–233). Thousand Oaks, CA: Sage.
- Sander, J., & Böcker, S. (1993). The German version of the Relationship Assessment Scale (RAS): A short scale for measuring satisfaction in a dyadic relationship. *Diagnostica*, 39(1), 55–62.
- Scanlan, F., Bailey, A., & Parker, A. (2012a). Evidence Summary: Adolescent romantic relationships - Why are they important? And should they be encouraged or avoided? *The Australian National Mental Health Foundation*. Retrieved from www.headspace.org.au/core/Handlers/MediaHandler.ashx?mediaId=12271/romanticrelationships_adolescent_romantic_relationships_why_are_they_important_headspace_evsum.pdf
- Scanlan, F., Bailey, A., & Parker, A. (2012b). Evidence Summary: Working with Adolescents - Keeping romantic relationships in mind. *The Australian National Mental Health Foundation*. Retrieved from www.headspace.org.au/core/Handlers/MediaHandler.ashx?mediaId=12271/romanticrelationships_working_with_adolescents_headspace_evsum.pdf

- Seiffge-Krenke, I. (1995). *Stress, Coping, and Relationships in Adolescence*. Hillsdale, NJ: Erlbaum.
- Seiffge-Krenke, I. (2000). Causal links between stressful events, coping style, and adolescent symptomatology. *Journal of Adolescence*, 23(6), 675–691.
doi:10.1006/jado.2000.0352
- Seiffge-Krenke, I. (2003). Testing theories of romantic development from adolescence to young adulthood: Evidence of a developmental sequence. *International Journal of Behavioral Development*, 27(6), 519–531. doi:10.1080/01650250344000145
- Seiffge-Krenke, I. (2006). Coping with relationship stressors: The impact of different working models of attachment and links to adaptation. *Journal of Youth and Adolescence*, 35(1), 25–39. doi:10.1007/s10964-005-9015-4
- Seiffge-Krenke, I. (2009). Erste Freundschaften und Trennungen, Sexualität [First friendships and separation, sexuality]. In J. M. Fegert, A. Streeck-Fischer, & H. Freyberger (Eds.), *Adoleszenzpsychiatrie. Psychiatrie und Psychotherapie der Adoleszenz und des jungen Erwachsenenalters [Adolescence psychiatry. Psychiatry and psychotherapy of adolescence and young adulthood]* (pp. 201–214). Stuttgart: Schattauer.
- Seiffge-Krenke, I. (2011). Coping with relationship stressors: A decade review. *Journal of Research on Adolescence*, 21(1), 196–210. doi:10.1111/j.1532-7795.2010.00723.x
- Seiffge-Krenke, I., Aunola, K., & Nurmi, J.-E. (2009). Changes in stress perception and coping during adolescence: The role of situational and personal factors. *Child Development*, 80(1), 259–279. doi:10.1111/j.1467-8624.2008.01258.x
- Seiffge-Krenke, I., & Klessinger, N. (2000). Long-term effects of avoidant coping on adolescents' depressive symptoms. *Journal of Youth and Adolescence*, 29(6), 617–630. doi:10.1023/A:1026440304695
- Seiffge-Krenke, I., & Lohaus, A. (2007). *Stress und Stressbewältigung im Kindes- und Jugendalter [Stress and coping in childhood and adolescence]*. Hogrefe Verlag.

- Seiffge-Krenke, I., Overbeek, G., & Vermulst, A. (2010). Parent–child relationship trajectories during adolescence: Longitudinal associations with romantic outcomes in emerging adulthood. *Journal of Adolescence*, 33(1), 159–171.
doi:10.1016/j.adolescence.2009.04.001
- Seiffge-Krenke, I., & Shulman, S. (2012). Transformations in heterosexual romantic relationships across the transition into adolescence. In B. Laursen & W. A. Collins (Eds.), *Relationship pathways. From adolescence to young adulthood* (pp. 157–189). Thousand Oaks, CA: Sage.
- Seiffge-Krenke, I., & Ziegenhain, U. (2009). Adoleszenz, junges Erwachsenenalter und Bindung [Adolescence, young adulthood and attachment]. In J. M. Fegert, A. Streeck-Fischer, & H. Freyberger, *Adoleszenzpsychiatrie. Psychiatrie und Psychotherapie der Adoleszenz und des jungen Erwachsenenalters [Adolescence psychiatry. Psychiatry and psychotherapy of adolescence and young adulthood]* (pp. 142–153). Stuttgart: Schattauer.
- Shrout, P. E., & Bolger, N. (2002). Mediation in experimental and nonexperimental studies: New procedures and recommendations. *Psychological Methods*, 7(4), 422–445.
doi:10.1037/1082-989X.7.4.422
- Shulman, S. (1993). Close relationships and coping behavior in adolescence. *J. Adolesc.*, 16(3), 267–283.
- Shulman, S., Davila, J., & Shachar-Shapira, L. (2010). Assessing romantic competence among older adolescents. *Journal of Adolescence*, 34(3), 397–406.
doi:10.1016/j.adolescence.2010.08.002
- Simon, R. W., & Barrett, A. E. (2010). Nonmarital romantic relationships and mental health in early adulthood: Does the association differ for women and men? *Journal of Health & Social Behavior*, 51(2), 168–182. doi:10.1177/0022146510372343

- Skinner, E. A., & Zimmer-Gembeck, M. J. (2007). The development of coping. *Annual Review of Psychology*, 58(1), 119–144. doi:10.1146/annurev.psych.58.110405.085705
- Smetana, J. G., Campione-Barr, N., & Metzger, A. (2006). Adolescent development in interpersonal and societal contexts. *Annual Review of Psychology*, 57(1), 255–284. doi:10.1146/annurev.psych.57.102904.190124
- Steinberg, S. J., Davila, J., & Fincham, F. (2006). Adolescent marital expectations and romantic experiences: Associations with perceptions about parental conflict and adolescent attachment security. *Journal of Youth and Adolescence*, 35(3), 314–329. doi:10.1007/s10964-006-9042-9
- Steiner, H., Erickson, S. J., Hernandez, N. L., & Pavelski, R. (2002). Coping styles as correlates of health in high school students. *Journal of Adolescent Health*, 30(5), 326–335. doi:10.1016/S1054-139X(01)00326-3
- Story, L. B., & Bradbury, T. N. (2004). Understanding marriage and stress: Essential questions and challenges. *Clinical Psychology Review*, 23(8), 1139–1162. doi:10.1016/j.cpr.2003.10.002
- Story, L. B., & Repetti, R. (2006). Daily occupational stressors and marital behavior. *Journal of Family Psychology*, 20(4), 690–700. doi:10.1037/0893-3200.20.4.690
- Surjadi, F. F., Lorenz, F. O., Wickrama, K. A. S., & Conger, R. D. (2011). Parental support, partner support, and the trajectories of mastery from adolescence to early adulthood. *Journal of Adolescence*, 34(4), 619–628. doi:10.1016/j.adolescence.2010.10.001
- Thibaut, J. W., & Kelley, H. H. (1978). *Interpersonal relations: A theory of interdependence*. New York: John Wiley & Sons Inc.
- Tolan, P. H., Gorman-Smith, D., Henry, D., Chung, K., & Hunt, M. (2002). The relation of patterns of coping of inner-city youth to psychopathology symptoms. *Journal of Research on Adolescence*, 12(4), 423–449. doi:10.1111/1532-7795.00040

- Tuval-Mashiach, R., & Shulman, S. (2006). Resolution of disagreements between romantic partners, among adolescents, and young adults: Qualitative analysis of interaction discourses. *Journal of Research on Adolescence*, 16(4), 561–588. doi:10.1111/j.1532-7795.2006.00508.x
- Welsh, D. P., Haugen, P. T., Widman, L., Darling, N., & Grello, C. M. (2005). Kissing is good: A developmental investigation of sexuality in adolescent romantic couples. *Sexuality Research & Social Policy*, 2(4), 32–41. doi:10.1525/srsp.2005.2.4.32
- Wunderer, E., & Schneewind, K. A. (2008). The relationship between marital standards, dyadic coping and marital satisfaction. *European Journal of Social Psychology*, 38(3), 462–476. doi:10.1002/ejsp.405
- Zimmer-Gembeck, M. J., & Ducat, W. (2010). Positive and negative romantic relationship quality: Age, familiarity, attachment and well-being as correlates of couple agreement and projection. *Journal of Adolescence*, 33(6), 879–890. doi:10.1016/j.adolescence.2010.07.008

LIST OF TABLES

Table 5.1 Descriptives and correlations Study I	39
Table 5.2 Indirect effects of the association of relationship satisfaction on extra-dyadic stress mediated by intra-dyadic stress	41
Table 6.1 Descriptives and correlations Study II	62
Table 6.2 APIM for prediction of relationship satisfaction (RS), physical well-being (PWB) and mental well-being (MWB) by individual and dyadic coping	63
Table 7.1 Descriptives and correlations of Predictor and Outcome Variables for Females (n = 54) and Males (n = 55) in Stable Relationships (Study III)	80
Table 7.2 Hierarchical Regressions on Females' and Males' Relationship Satisfaction After One Year	81
Table 7.3 Descriptives and Correlations of Relationship Duration, Individual Coping, Dyadic Coping and Relationship Satisfaction at First Assessment (N = 99 Couples; Study III)	82
Table 7.4 Logistic Regression Predicting Relationship Stability of Adolescent Couples After One Year (N = 99 Couples)	83

LIST OF FIGURES

Figure 1-1. Women's and men's average age at first marriage and women's average age at maternity over years (1971 – 2013) in Switzerland (Swiss Federal Statistical Office (BfS), 2014).....	2
Figure 4-1. Complete study design of the Swiss National Science Foundation Project (SNSF; No: 100014_129699) Partnerships in Adolescence (PiA).	19
Figure 5-1. Actor-Partner Interdependence Model with extra-dyadic stress (ES) as independent, intra-dyadic stress (IS) as mediator and relationship satisfaction (RS) as dependent variables and partner's dyadic coping (DCP) as moderators.	40
Figure 5-2. Extra-dyadic stress and intra-dyadic stress moderated by dyadic coping for female and male adolescents.	42
Figure 6-1. Actor-Partner Interdependence Model (APIM) of female and male adolescents' dependent variables (DV) on their individual coping (IC), positive dyadic coping (PDC) and negative dyadic coping (NDC).	61